## COMPUTERWORLD



## Is Your Data Safe Offshore



We went to India and China, the two hottest offshore outsourcing destinations, to find out. Our on-location coverage from Bangalore and Shanghai begins on page 6.

#### Key Financial Firms Compare Notes on Disaster Recovery

BY LUCAS MEARIAN
A group of top financial services companies confirmed
last week that their IT executives have met to share current disaster recovery schemes

and discuss future technology recovery strategies. And what they found was that they had a lot in common — including headaches.

"To start with, I found out

U M I PERDODICALS PO BOX 1346

PO BOX 1346 34-5 NH MBOR HI 48186-1346 I'm not alone. All banks are struggling with this," said Todd Baumann, director of enterprise business continuity at Huntington Baneshares Inc. in Columbus, Ohio.

The Technology Recovery Project involved an information exchange among eight banks (see list, page 14). IBM, Microsoft Corp, and Veritas Software Corp, also participated in the project, which was organized by the New York-

MORE ON UNIT

nology Consortium and took place between November

2003 and June of this year.

The banks and bank holding companies looked at mainframe, open systems and stor-Disaster Plans, page 14 App Tests for Win XP SP2 Burden Users

ANGUST 30, 2004 - VOL 38 - NO 35 - \$5/COP1

Most delay installing XP security update



Microsoft Corp's Service Pack 2 is an important security-focused up-

date for corporate users runming Windows XP. But in the three weeks since its release, it's been a tough pill for many to swallow, as they struggle to test tens, hundreds and, in some cases, at least 1,000 applications against it.

Only two of 32 IT managers who responded last week to a Computer world survey conducted via e-mail and telephone said their compunies had deployed SP2, and in both cases they did so as part of Microsoft early-adopter programs. The majority said they'te still testing SP2 to determine its compatibility with the applications their companies.

"As we get closer to the holidays, we don't make changes of this significance because we don't want to disrupt our environment so close to our SPZ, none 45

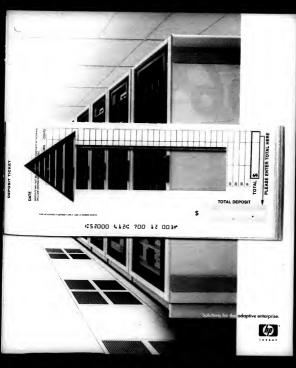
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#### Can you afford to change?

The time has come, they say, to transform your IT. But how? On what scale? As a bachedgy company, the creates—as on formacial restitution corresponding systems through impossible, and lets you change without lets. The considers help you idently the handware, software and services you! need. Then IP financial Services helps you finance global migration and manager the technology over all selegon, while minimizing francial risks. Other you can offer all change, you might even embroase; a www.hp.com/final/play. change





or companies rely on .NET for their or mary development environmen



Windows Server System

## CONTENTS



**Encryption Must Move Beyond SHA** 

In the Technology section: Bruce Schneler says recent progress in breaking the MD5 and SHA hash functions means it's time to find a new hash standard. Page 28



08.30.04

Who Owns the Web? In the Management section:

When business units fight for control of the corporate Web site, the company loses. Page 31

#### NEWS



- 12 The SEC has postponed by one year a Sarbanes-Oxley Act deadline for swifter filling of annual corporate reports.
- 13 U.S. Army payroll systems have been pushed past their breaking point by the war in Iraq, causing problems for reservists, says the GAO.
- 13 The TSA plans tests of new airport security technologies, but lawmakers and industry executives are frustrated by the slow pace of deployment.
- 15 Wireless WANs move beyond fixed points as Washington State Ferries plans to offer Wi-Fi service on its vessels.

#### TECHNOLOGY

- 19 Organized Crime invades Cyberspace. Script kiddies and vandals get the publicity. but pros with a profit motive are moving into cybercrime.
- 24 Directory Assistance. Virtual directories provide a faster, cusier way to connect directory-dependent applications with the user data they need.
- 26 QuickShady: Fuzzy Logic. An extension of Boolean logic, fuzzy logic is designed to come up with answers when data is vague or imprecise.
- 27 Socurity Manager's Journal: Company Socrets lift the Exits. Mathias Thurman discovers that executives are free to leave his company with laptops loaded with strategic applications and data.
- MANAGEMENT
  33 Petite Portfolio. Several small
- 33 Petite Portfolio, Several sma projects can add up to big risks. Managing them efficiently requires a blend of rigor and common sense.
- 36 Who's Who in IT: The Thrill of Crists. You may think database administration is a skill, but DBA Gary Rue knows it's an art. In his world, a crisis is always just around the corner.
- 37 Book Raviews: From IT Governance to Hacking. These new books can belp you survive as a CIO, set up effective IT governance, profit from agile project management and outwit haviers.

#### **OPINIONS**

- 10 On the Mark: Mark Hall learns of ways to thwart theft by iPod, kill spam before it reaches your network and create a virtual directory
- 16 Maryfran Johnson sees something big in Duke Power's decision to give its framework for Net development to the open-source community. But the move raises questions about licensing that all IT managers should investigate.
- 16 Dan Gillmer thinks Microsoft should use some of its billions in reserves to ensure that the next PC you buy doesn't need immediate XP upgrades.
- 17 Pimm Fex has some advice for the agency behind the antiterror "so-fly" list: Get the technology right.
- 38 Gopal K. Kapur says project managers send to point to two key causes of project failures: half-baked or harebrained ideas and excessive scope creep. What's his solution?, Just say har
- 46 Frankly Speaking: Frank Hayes warms that before you junk data storage devices, remember that any information they contain is dangerous in the wrong hands.

Shark Tank ...

DEPARTMENTS/RESOURCES
AT Deadline Briefs . 30
News Briefs . 22
Letters . 77
TT Careers . 40
Company Index . 44
Listes of the way of

## ONLINE



Phishing: Are You Responsible?

IT MANAGEMENT: Those c-mails trying to con customers into parting with sensitive information may not be connected to your company, but washing your hands of the mess is bad for business, says new IT Ethics columnist Larry Ponemon.

O QuickLink #4820.

Apple Remote Desktop 2
Well Worth the Money'
MACINTOSH: Columnist Yuval Kossovsky

takes Apple Remote Desktop 2 out for a spin and finds that its new management features make it an upgrade that's worthy of consideration. • Quietd int 46001

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## Security Expectations, Response Rise in India

INCREASINGLY TOUGH OFMANDS FROM U.S. CLIENTS SPARK CHANGE. BY JAIKUMAR VIJAYAN BANGALORE

> secures the perimeter of Wappo Technoloces' main campus in Inside, just behind the sliding steel gates, is a checkpoint. where security personnel pour photo-ID hadon to

all visitors. Card keys and humorraauthentication devices control access to the various development centers in sleek buildmps dotting the landscaped campus Closed-circuit TVs provide constant surveillance. At the same time, an invisi-

ble perimeter of event logging and monitoring tools, intruson-detection systems, firewalls and encryption technologies protects the company's information infrastructure. Such measures are what's needed to allay security con-

certs for US elients outsourcing work to Wipro, said J. Pazhamalai, information security services sendor. 'Data security and privacy used to be an afronthought," Paphamalai said. Now contomers are rulling about it right at the

RFP stage itself. They want a security plan with Wipro and other Indian outsum my vendoes are holstering their securps and process

practices in response to U.S. concerns stemming from the compleaffice requirements Leah Kiles and HIPAA Da kee

data that could be remotely accessed as part of IT application development, testing or [business process oursourcangl." said Rusi Brit, CEO of Heyaware Technologies Ltd., a Mumbus-based service prosider with facilities in Banga lore. They are demanding documented, auditable procesdural controls."

to the security and privacy of

Regulatory compliance is what's drawing much of the need for such measures, agreed Ram Moult, vice president of technology planting and development at T. Rowe Price Group Inc. The Baltimoreerts, and damage from worms based investment management firm, which manages assets worth more than \$206 billion, has outsourced several

application development proj "New regulations from the SEC and other regulatory apencies have created a need for several internal controls for application development. change control and maintenance," Mouli said, "These controls have to be extended

offshore and munitored." The result is "tremen loss." scrutiny right now on data security, access controls and priwary" related to offshore work. said the chief technology officer of a Chicago-based service provider for the financial inThe ability for employees to carry data out of the facility is minimized to what they can carry in their heads

SUND, GUURAL, WIS PRESIDENT OF FED-MOLDOY WIPRO SPECTRAMIAN

dustry who spoke on condition of anomemity. "Some of our customers have asked us to fill out extraordinarily detailed questionnaires in which they ask us to attest to our security controls so they in turn can include that in their complance documents," he said. The trend is resulting in a much greater focus by both U.S. companies and their Indian vendors on issues such as security certifications and audits, identity management and application provisioning and on detailed event lesseine and manitoring activities (see

"Security Checklist," pure 7). There's no question that wcurity expectations have risen sharely, said S. Gopalakrishnan, chief operating officer at Bangalone-based Infoses Tools nologies Ltd., one of India's largest IT services vendors. with revenue of more than



therized data access, acciden-

tal information loss and salvo-

tage, loss of intellectual prop-

A growing number of com-

panies "are seeking strangent

contractual guarantees related

and vinnes

## A Painfully Slow Process

As a result, more than a onth after the como was filed, no action has been Changus said. In frustration month decided to file a law rtment over its al

leged failure to take action in "There are IP pro laws there, but so far, we

have received zero prot





(YSICAL SECURITY measures at major outsourcing service providers include guarded entrances.

SI hillion, 'It's become a lot more explicit now, We've had to improve on and formalize a lot of things' from a data security standpoint, he said.

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One example is a backup storage site that Infosys recently established outside India in nearby Mauritius, All client backup tapes are shipped weekly to the site as precention. In addition, each client has been assigned a standby backup facility in an alternate location. Gopulairishnan sad Indian business process our

sourcing (RPO) companies, which typically handle a lot more sensitive information when servicing their elients than pure IT development shops, take extra precautions Wipro Spectramid, a 505 million BPO subsidiers of from carrying mobile phones or peris and paper to their work areas. The ability for employees to carry data out of the facility is minimized to what they can carry in their heads. "sid Sund Lotted late?" President of technology. As with other IRO outfire

Wipes prohibits employees

As with other RPO certificated may TI development shops at spectramed, any ports and decises that can be used to state the state of the

"Spectrammal only has the abulisty to vace four data," and Chris Larsen, CFO of F-1 our line; a Pleasanton, Calit.-based online; possider of consumer loans that has nutsourced a portion of its back-office home-equity undersurging functions to Spectramind.

One trook to Spectramind.

"They do not have the ability to store, share, print or retain data in their findia-based computers and systems."

F-Luan also uses a variety of technologies from companies such as Tripulier Inc. and open-source tools like Nagios

to monitor and log activity at Spectramind, Larsen added. Ongoing Risks

Despite the measures to bolster, security, the relative dearth of security professionals in India, the breaknees, growth of its IT industry and an onerous legal system continue to pose risks that must not be overlooked, cautioned Sattis Kaparia, an analyse at USSAke Inc. a Cambrishe

Mass-based consultancy.
Much of the gnowth in Indian IT jobs over the past few
years has been in areas such as
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by Kapuria noted.
On paper at least, India has several laws that cover data severality and privacy issues. The most promunent one is the Indian Information Technology.

Act of 2000, which makes the unauthorized use of data a punishable offense. But time by enforcement of such laws could prone difficult, presen the counterfunds show parce of the country Segul system. That

poses a significant throat from an intellectual property protection standpoint. Experies and Morcover, the distance tator can help conceal risks pratices expectally when dame with smaller firms. For example, a fast-growing BOO compain that was recently non-inpain that was recently non-in-

succeeded when demiministration from her ceample a fast-growing BPO company that was recently moving to a larger fastility decided to move some of its servers to a morely linearie calle, where it connected to will be a larger fasttion when the connected to where its connected to will be a larger fastility.

And although the practic appears to be care, Indian femiappears to be care, Indian femihave here through to sub-contract work out to companies in other countries without the knowledge of the LS chemand with none of the security measures that might have been originally agreed upon.

But the reputable providers appear to have gotten the security message from their clients. It's no longer enough for Indian companies to "simply sag they are addressing the rooke." Gopulakrishman acknowledged. "They've got to be able to show how they

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Security Checklist

■ REQUIRE Indian vendors to have their development onters audited by established firms or be certified under international data security and audit standards such as SETY99 or SASYO Many companies also reserve the right to do spot audits and cheer's.

■ (Access): the use of encryption, frewalls and entrysordetection systems to deal with malicous attacks. To watch for inside the use, companies have begun mandaling content-filtering tools and event logging and monitoring technologies on the networks connecting U.S. chents with their Indian providers.

■ CONDUCT rigorous background checks on employees and require them to sign confidentiality agreements prohibiting the disclosure of proprietary information when they leave the

e FOCUS on physical security and access-control systems, business continuity and disaster recoverability. Many companies insist on off-site storage and atter-

wipro n

IT WPRO a fortiled physical perameter is complemented by an envision personner of introduced physical personner. Innovate and envision

cautions we could. But if we can't protect our IP, there is no way we can do business there. The said. "People have to know that they just can't steal confidential information and get away with it."

inca 3 if under organization, the New Defti-based National Association of Sol ware and Service Compani (Nasscom), is acutely swa (Nasscom), is acutely swa if data protection can't be

The organization recently launched an education campaign aimed at judicial and police authorities as well as the ministries of IT and law.

Sunii Mehta said. The idea is to create a much hreader a much hreader a murens of the need for enacting legislation that can be more assily enforced.

Nasscom is also working with IT companies to build a database that window can be to more quickly and reliably world you employed.

The global database w compiled with input from Nasscom's members but won't be used as an instrment for Markifeting are

ees, he said.
- Jakumar Kjayan

## Security Expectations, Response Rise in India

INCREASINGLY TOUGH DEMANDS FROM U.S. CLIENTS SPARK CHANGE.
BY JAKUMAR VIJAYAN BANGALORE

TALL ELECTRIC FENCE secures the perimeter of Wipro Technologies' main campus in Bangalon's Electronic City. Inside, just behind the sliding steel gates, is a checkpoint where security personnel issue photo-ID badges to all visions:

Card keys and hiometric authentication devices control access to the various development centers in sleek buildings dotting the landscaped campus. Closed-circuit TVs provide constant surveillance. At the same time, an invisible perimeter of event logging and monitoring tools, intrusion-detection systems, firewalls and encryption technologies protects the company's information infrastructure. Such measures are what's needed to allay security con-

ceras for U.S clients outsourcing work to Wipro, said J. Parhamalai, information security manager at the 51 billion IT services vendor. "Data security and privacy used to be an afterthought," Parhamalai said. "Now customers are talk-

ing about it right at the RFP stage itself. They want a security plan with the proposal." Wipro and other indian outsourcing vendors are bolstering their se-

are botstering their security and privacy practices in response to U.S. concerns stemming from the compliance requirements of laws such as Sertonse-Color Company

of laws such as Sarbanes-Oxley, Gramm Leach-Billey and HIPAA. The key threats include unauto the security and privacy of data that could be removely accessed as part of IT application development, testing or [business process outsourcings], and Busil Brij. Cito of Hexaware Technologies Ltd., a Mumbab-based service provider with facilities in Bangadecumbers of the March of the development of the March of the development of the March of the development of the March of the Regulatory complisator is

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ment firm, which manages assets worth more than \$206 billion, has outsourced several application development proects to India.

"New regulations from the SEC and other regulatory agencies have created a need for several internal controls for application development, change control and maintenance," Mouli said. "These controls have to be extended

offshore and monitored."
The result is "tremendous scrutiny right now on data security, access controls and privacy" related to offshore work, said the chief technology officer of a Chicago-based service provider for the financial in-

The ability for employees to carry data out of the facility is minimized to what they can carry in their heads.

SUNIL COLUMNAL, WICE PRESIDENT OF TECHNOLOGY, WIPPO SPECTRAMIND

dustry who spoke on condition of anonymity. "Some of our customers have asked us to fill out extraordinarily detailed questionnaires in which they ask us to attest to our security controls so they in turn can include that in their compliance documents," he said. The trend is resulting in a much greater focus by both U.S. companies and their Indian vendors on issues such as security certifications and audits, identity management and application provisioning and on detailed event logging and monitoring activities (see

"Security Checklist," page 7).
There's no question that security expectations have risen sharply, said S. Gopalakrishnan, chief operating officer at Bangalor-based Infosy Technologies Ltd., one of India's largest IT services vendors, with revenue of more than



A growing number of com-

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and viruses.

### **A Painfully Slow Process**

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has been assigned a standby backup facility in an alternate location, Gopalakrishnan said. Indian business process outsourcing (BPO) companies, which typically handle a lot more sensitive information when servicing their clients than pure IT development shops, take extra precautions

Wipro Spectramind, a \$95

million BPO subsidiary of -

Wipro, prohibits employees from carrying mobile phones or pens and paper to their work areas. "The ability for employees to carry data out of the facility is minimized to what they can carry in their heads," said Sunil Guiral, vice president of technology.

As with other BPO outfits and many IT development shops, at Spectramind, any ports and devices that can be used to store or copy data are disabled on all PCs and notebooks that employees might need to use to deliver services for U.S. clients. A majority of its call center agents access customer systems via barebones Citrix Systems Inc. terminals that provide no avenue

for data to be stored or conicd "[Spectramind] only has the ability to view four! data." said Chris Larsen, CEO of E-Loan Inc., a Pleasanton, Calif-based online provider of consumer loans that has outsourced a portion of its back-office bome-equity underwriting functions to Spectramind. They do not have the ability to store, share, print or retain

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#### to monitor and log activity at Spectramind, Larsen added. Ongoing Risks

Despite the measures to bolster security, the relative dearth of security professionals in India, the breaknesk growth of its IT industry and an onerous legal system continue to pose risks that must not be overlooked, cautioned Samir Kapuria, an analyst at @stake Inc., a Cambridge,

Mass.-based consultancy. Much of the growth in Indian IT jobs over the past few years has been in areas such as application development and maintenance, rather than in a "niche job" such as IT security. Kapuria noted.

On paper at least, India has several laws that cover data security and privacy issues. The most prominent one is the Indian Information Technology

Act of 2000 which makes the unauthorized use of data a punishable offense. But rimely enforcement of such laws could prove difficult, given the excruciatingly slow pace of the country's legal system. That poses a significant threat from

an intellectual property procestion standpoint, Kapuria said. Moreover, the distance factor can help conceal risky practices, especially when dealing with smaller firms. For example, a fast-growing BPO company that was recently moving to a larger facility decided to move some of its servers to a nearby Internet cafe, where it connected to its U.S. clients. because of a delay in the open-

ing of its new facility. And although the practice appears to be rare, Indian firms have been known to subcontract work out to companies in other countries without the knowledge of the U.S. client

and with none of the security measures that might have been originally agreed upon.

But the reputable providers appear to have gotten the security message from their clients. It's no longer enough for Indian companies to \*simply say they are addressing the issue," Gopalakrishnan acknowledged. "They've got to be able to show how they

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are addressing it." O 49098 For related news, visit our Offshor Outsourcing special coverage page

Security Checklist

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## Overcoming the Piracy Stigma in China

#### PROVIDERS 'OVERCOMPENSATE' FOR THE RISK. BY SUMMER LEMON SHANGHAI

ALK into the accesscontrolled room full of software developers at Bleum Inc.'s beadouarters here and you can't miss the slogan written in large hlue and black letters that stretches across the far wall: "Protect our customer."

The message is there to serve as a constant reminder for Bleum's team of Englishspeaking software engineers of the importance of keeping clients' software code secure, said Eric Rongley, the outsourcing service provider's

Concerns about the protecttion of intellectual property and proprietary corporate data are hardly unique to China. But the security risks are greater here than in locations such as India or Eastern Europe, Rongley said. "It's definitely in the interests of a

company here to overcompensate for it," he said. China's poor reputation for

intellectual property protecttion stems largely from the widespread availability of pirated DVD movies and software. Last month, the Business Software Alliance in Washington estimated that 92% of software used in China during 2003 was unlicensed and illegal. That figure tied the country with Vietnam for the dubi-

ous distinction of having the world's highest piracy rate. But a high piracy rate for packaged applications doesn't inherently place outsourced

software development proiects at risk, said Chen Linesheng, vice president of greater China at BearingPoint Inc., calling security concrene in China overblown. Outsourcing projects to companies in China can be as secure

as it is anywhere else, he said. "We had a major financial client from the U.S. come over here to do a security audit before they would give us a project, and we passed the audit." Chen said, noting that BearincPoint follows the same security procedures in China that it uses in the U.S.

In addition to conducting security audits, those procedures include strictly enforcing nondisclosure agreements and restricting development work to facilities that require a keyeard for some

BearingPoint and other outsourcing service providers in China are willing to go even further to meet their customers' security demands. For example, BearingPoint developers have access only to code

and project documentation. 'As an outsourcing service provider, we take it very seri ously to protect our clients'

secrets and husiness data." said Walter Fang, group vice president and chief technology officer at Neusoft Group Ltd. a Chinese software company based in the northeast. ern city of Shenyang. Neusoft employs 1,500 developers who work on outsourcing projects

at several locations in China. Neusoft allocates serverate buildings for major clients such as Toshiha Corp. and Alpine Electronics Inc., and it restricts access to the build. ings to staff working with those companies. Fane said. On-site offices are available to each client's project managers, and Neusoft can pro-

vide them with individual

sourced development projects, BearingPoint has offered to install video cameras to monitor work in project rooms at its facilities in Shanghai and the northeastern Chinese city of Dalian Chen said

At Bleum's highest level of security, Rongley said, the company offers a "shadow group" of developers who are given financial incentives to uncover vulnerabilities in software developed by the lead development team.

The shadow developers examine the code for security holes such as back doors or opportunities for buffer overflows that would allow attackers to run executable code.



phone lines rather than com pany extensions, he said Aside from physical security measures, Fang said foreign

companies can build effective legal protections into their contracts with outsourcine providers in China. For example. Neusoft's contracts with its Japanese clients are typically designed to be enforce-

able in both Japan and China while offering an avenue for arbitration with a third porty under Hong Kong law, he said. For companies that want to keep a closer eye on out-

correspondent in Tainei.

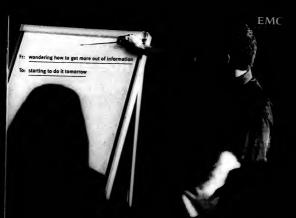
While these and other mea sures may help to guarantee the security of a customer's

code and data, the best way to improve intellectual prop erty protection in China is to change cultural attitudes. according to Roneley. He noted that service providers can advance the cause through training sessions and staff

meetings. And even slogans on the wall. O 49092

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AT AN EMC FORUM, SEE HOW TODAY'S STORAGE AND INFORMATION MANAGEMEN STRATEGIES CAN HELP YOU SOLVE YOUR BIGGEST IT CHALLENGES.

#### Storage Subsystem Out of Longhorn

Microsoft Corp. announced Friday a change in plans for the next maor release of Windows, which in ode-named Longhorn. The new down storage subsystem, e-named WinF3, won't be part of the Longhorn client, as previoutly planned. Microsoft said MnFS will be delivered after the Longhorn release. The company said the Longhorn client in targeted for generally availability in 2006. It said it expects the Lon form server release to be avail

#### Cisco Warns of Two Security Flaws

Cisco Systems Inc. last week warned about security holes in we products that provide user authentication and authorization rvices: the Cisco Secure Acces etroj Server for Windows, and over Solution Engine. Class rec anded that customers with se contracts obtain the ups using the Cisco Product Upde Tool or by contacting its

#### Oracle Again Moves Offer for PeopleSoft Oracle Corp. on Thursday filed anther extension in its hostile \$7.7 on bid to acquire PeopleSoft inc., this time pushing the dead-line ahead two weeks to Sept. 10. Oracle said it now has 21.7 milli

ed shares - 6% of People-Selt's outstanding total. **U.K. Agency Adopts** 

Sun's Java Desktop The U.K.'s National Health Ser ice last week said it purchased 5,000 Sceness for Sun Microsys-tems Inc.'s Java Deaktop System as an alternative to Windows, The HHS in spending \$8 billion to upade its IT infrastructure. It beeting the use of Sun's

## ATDEADLINE C ON THE MARK



## Ways to Steal.

... critical corporate information. So warns Gartner Inc. in a report detailing how data crooks can use portable music players like Apple Computer Inc.'s iPod to rob you blind [QuickLink 47983]. Vladimir Chernavsky, CEO of AdvancedForce InfoSecurity Inc. in San Ramon, Calif., amplifies that concern by including Bluetooth devices, floppy disks, CDs and virtu-

ally anything that can store runs \$35 for a single license. data and use a pair of less to but that price can fall to less leave the premises. "Someone than \$7 when you get 1,000 or carrying a hard drive out of a more licenses. Think of it as a building would be suspicious. little something from Russia but carrying an iPod is oot," with love. be observes. "Now everyon Kill Spam Before . . . is potentially lames Bond." As you would expect, Chernaysky has a solution: Device-Lock, His company has the exclusive North American rights to sell the software

from its Russian authors at SmartLine Inc. DeviceLock is designed to prevent data from being written to any device type. But it's flexible enough that you can, for exle, permit Universal Serial Bus keyboards to be used, but not USB storage systems. A new release coming in November will let you centrally log the files that you do permit to be written to a mobile device, so you'll know whether an executive is updating his Bluetooth unit's

contact list or downloadi

your entire customer file. It

War nebeck That's the wisdom from Scott Petry, nev officer and founder of Dourini Inc. in Redwood City, Calif. He

... il mach

claims that his service stone 50% of the 400 million e-mails destined for his cus tomers' networks every day. because they're spam. "If

you're blocking them at your gateway, it's much more expensive," he says. He argues that service providers such as Postini are more efficient because they can see "the

#### HOT TECHNOLOGY TRENDS, NEW PRODUCT **NEWS AND INDUSTRY BOSSIP BY MARK HALL**

SMTP conversation" on the Internet and quickly identify and remove spam- and virusladen messages. Petry says privately beld Postini is profitable, growing at close to 180% this year and looking to acquire companies in what he expects will be a rapidly coosolidating market over the next year.

#### **Event-Driven Data** Gets Pushed . . .

... to users' screens with publish-and-extracribe tool. Know Now 3 from KnowNow Inc. in Sunmvale. Calif., climinates the need for end users to request reports on data generated across the HTTP-based networks. The server software "dual posts" requested data and immediately directs it to a user's screen or to an application. For example, upon completing an online form, a Web visitor can be instantly sent to an available customer service agent, or sales data entered in an ERP system can be immediately sent to a soles executive's desktop spreadsheet. Version 3, which ships at the end of next month, includes a new module for Mi-

crosoft SharePoint systems. more granular event filtering and added database support. Pricing starts at \$15,000. Tech Support Goes Remote . . .

... with a hosted service from Citris Systems Inc. Go To Assist 6.0, which is set for release on Sept. 14. lets your technical service reps remotely view and control the PCs of end users who are buffled by the behavior of their Windows machines. The upgrade in-

cludes nifty improvements such as giving technicians the ability to remotely reboot a machine and then retain the cate users and their rights across multiple directo Expect to pay about \$50,000

link to the user's PC after the restart in case the problem persists. There's no need for the troubled end user to have client software, so customer support can be handled on an ad hoc basis. Each session is 128-bit encrypted for secure unications. The service works for both desktops and servers, and Citrix is planning Linux and Unix support in the coming mooths. Pricing starts at \$325 per month per tech-support agent, with a

#### one-time start-up charge of \$700. There are no session fees or end-user time limits for the GoToAssist service. Forget Centralized Directory Efforts . . .



they're There are fust too many sources with too many methods and scattered throughou

...becau

your compamy to get under control. So, should you just give up? Maybe not, Michel Promos CEO of Radiant Logic Inc. in Novato, Calif., claims that a virtual directory is the solution. "Trying to centralize and create the überdirectory has been a big failure."he says. But virtualization works." In effect, your users query the virtual directory. which handles the protocol and other differences among the various directories linked to it. Radiant One 4.0, which ships this week, can even virtualize Web services. By October, when 4.1 ships, Radiant will release federated security services that will authenti-

to sidestep nonvirtual doors

## There is no one, single solution to security.

#### But there is one source for ongoing security guidance.

Go to the Security Guidance Center at microsoft.com/security/IT to see the newest additions, including:

Microsoft" Windows" XP Service Pack 2 Download and evaluate the latest updates for increased system control and proactive protection against security threats.

Free Online Self Assessment Complete this free, Web-based self assessment to help you evaluate your organization's security practices, and indentify areas for improvement

Free Updates and E-mail Alerts Stay on top of the latest security issues quickly and easily by signing up for free Microsoft Security Communications.

Free Security Tools React more effectively to potential security threats. Take advantage of free tools and technologies like the Microsoft Baseline Security Analyzer and Software Update Services.

Visit the Security Guidance Centair regularly for the latest security developments. It's continually updated to you can find the tools and training you need to help better protect your company, all at one centralized resource. For practice protection and ongoing guidance, visit microsoft.com/security/IT toolsy



#### **HP's Virus Throttler** Service Is Shelved

Six months after unveiling tech nology designed to choke off the spread of viruses, Hewlett-Packard Co. is shelving the proect. The company won't be releasing a security service called Virus Throttler because it requires operating system changes that are incompatible with Wandows, HP said last week,

#### Cisco to Purchase P-Cube for \$200M

Cisco Systems Inc. said last week it has agreed to acquire Sunny vale. Cald -based software developer P-Cube inc. in a deal that Cisco valued at \$200 million. Cisco plans to continue sellion P-Cube's software which below service providers analyze and control network traffic, as standalone products. The company said it will also work on incorporating the technology into its own hardware and software.

#### **ILS Forest Service** To Cut 500 IT Jobs

The U.S. Department of Agriculture Forest Service is cutting the equivalent of 500 full-time (Tubs. in a reorganization of its IT department Forest Service employ ees won a competitive sourcing contract to manage the IT depart ment. The workers had bid against undisclosed private companies for the contract, which is valued at \$295 million. The Forest Service expects to save approximately 5100 million over the five years the agreement is in place.

#### **Short Takes**

The I would pay it signed a \$35 million contract with AMERICA OF Service Makeholescool human resources application. . . CROSCO THESE said it has fin-

ished work on Microsoft Goerations Manager 2005, a major up date to its MOM 2000 performance management software.

## SEC Deadline Delay Signals Sarb-Ox Relief

Should help ease transition to new reporting mandates

BY THOMAS HOFFMAN Pitts statement I whater to return delay an acorderated filters persed for annual reports - a mone expected to help but companies

transition more easily to year end reporting requirements under the Subanes-Order Act. clumps to the Securities Excharace Act of 2024 that shortened the amount of time comquarterly and annual reports after the end of a fiscal period. The filing requirements for ompanies with a market caretalization of \$25 million or within the close of a business

cycle to 25 days this year It was schoduled to be cut to so! day nest year But wanters clear to the acour wild the SHC was being

What happened What it means Why it matters

pressured by big accounting firms to mangan the 75-day films requirement for one more year to help by: companies make their first transgion to a scar-end Sarbanes-Disley dealline Under the NEC proposal issued last week, the current deadline for so-called acceletited filers would remain at N

days for annual reports and 40 day for quarterly reports. The ried would resume for persons filed for fiscal years ending on or after Dec. 15, 2005, SEC reg. istrants have 30 days to comment on the proposal

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The nation's But Four account ing firms recently asked the SEC "that they not push libe filing requirement) to 60 days. at least for the moment, to help companies deal with these current pressures," said Martos Damarades, interna-

Under Section 404 of the

Sarbanes-Oxley Act of 2002.

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tional president of the Informotion Systems Audit and Control Association and the Information Technology Governance Institute, both in Rolling Meadows, III For the past few weeks, rumors have been swirling that

the SEC might extend the deadline for public companies to meet Section 404 requirements. But sources said those numors are unfounded and were based on misanterpretations of recent comments. made by SEC officials; Section 404 enforcement delays aren't anticipated. An SFC spokesman declined to comment. "The SEC has Jalready

postponed Section 404 dex L lines twice. If they keep back ing Jown and do it a third time, people are going to ques tion their credibility," said Tim Welu, CEO of Passley Consulting Inc., a company in Cokago. Minn, that develops software for managing audits of both IT and financial controls. "I think they'd only extend the accelerated filing period."

sald Eric Clarke, internal audit director at Bresler & Reiner Inc., a Rockville, Md.-based "If they keep extending the deadline for meeting Section 404 requirements, it won't do anything for investor confidence." O 49101

close to regulators all material Imancial exposures they have. including IT equipment leases and licensing agreements, which

A scott to be outlished our vev of 220 fT decision-makers by Boston-based AMR Research Inc. found that companies that consider regulatory compliance the too business issue affection their security spending cite like need to invest in auditing and assel-tracking tools as their No 1 securey budget priority

- Thomas Hoffman MORE SARR-OX

For additional information yest our OuickLink a3250

#### Regulatory Demands Put Spotlight On Asset Management Practices

Brester & Romer Inc. has found rself placing a lot more emphasis on IT asset management prac-

Lors as a result of pressing requi latory compliance demands Earlier this year the Rockyde Md based real estate muestment frued installed an industry-spacel

ic accounting software package that's used by its various property management companies The package was supplied by Beaverton, One-based Timber Ine Soltware Corp., said Enc. Clarke Bresier & Remov's intercal audit descripe

To help meet regulatory regurements such as the Sar-

honos-Oblay Art "ass want to make sure financial information on our software and servers is adequately salequarted and that we have an adequate disposer recovery plan in place for each ste," Clarke sad

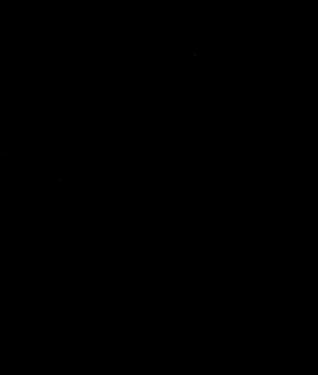
Indeed, regulatory secure meets are lesson (T manages in track they IT assets more closely. said Jane Distring an analyst at Gartner Inc. "Il you don't know where all your laptops and softwere are located from can you telf angulatory bodies that cuslomes information is been kent

nusse? she card IT asset management concerts are just making their way onto Zebra Technologies Corp 's regulatory radar screen (T asset management "is something that is on our Sarb-Ox list a month. or so into the luture," said Todd Naughton vice president and controller at the mritt components supplier in Vernon Hills, III

Sarbanes-Oxford is having a two-pronged affect on IT asset management practices. Under Section 404 of the act, companes are required to affect to the internal controls that are used for financial reporting. These projude IT-related controls that terms have in place to effectively track and monitor hardware, plus software used to support Imancal report-

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The U.S. POSTAL SERVICE signs a \$35 million contract with SAP AMERICA INC. for a Web-based human resources application. . . . MICROSOFT CORP. said it has forished work on Microsoft Opera-tions Manager 2005, a major up-date to its MOM 2000 perfor-

## SEC Deadline Delay Signals Sarb-Ox Relief

JUST THE FACTS

Should help ease transition to new reporting mandates BY THOMAS HOFFMAN

HE US SECURITIES and Exchange Commission last week announced that it will delay an accelerated filing period for annual reports - a move expected to help hig companies transition more easily to yearend reporting requirements

To 2002, the SEC made a change to the Securities Fxchange Act of 1934 that shortened the amount of time companies would have to file their quarterly and annual reports after the end of a fiscal period The filing requirements for companies with a market capitalization of \$75 million or

more thrank from 90 days within the close of a business cycle to 75 days this year. It was scheduled to he cut to 60 days next year. But sources close to the insue said the SEC was being

under the Sarbanes-Oxley Act. pressured by big accounting firms to maintain the 75-day filing requirement for one more year to help hig companies make their first transition to a year-end Sarbanes-Oxley deadline. Under the SEC proposal issued last week, the current

deadline for so-called accelcrated filers would remain at 75 days for annual reports and 40 days for quarterly recorns. The accelerated-filing phase in period would resume for reports filed for fiscal years ending on or after Dec. 15, 2005. SEC registrants have 30 days to comment on the proposal.

Under Section 404 of the Sarbanes-Oxley Act of 2002 large companies must document in their annual reports the financial and IT controls they have in place for fiscal years that end on or after Nov. 15, 2004.

Big Four Weigh In The nation's Big Four accounting firms recently asked the SEC "that they not push [the filing requirement) to 60 days at least for the moment, to help companies deal with these current pressures," said Marios Damianides, international president of the Information Systems Audit and Control Association and the Information Technology Governance Institute, both in Rolling Meadows, III.

For the past few weeks, rumors have been swirling that the SEC might extend the deadline for public companies to meet Section 404 requirements. But sources said those rumors are unfounded and were based on misinterpretations of recent comments made by SEC officials: Section 404 enforcement delays aren't anticipated. An SEC spokesman declined to comment.

"The SEC has laiready postponed Section 404 dead lines twice. If they keep backing down and do it a third time, people are going to q tion their credibility," said Tim Welts, CEO of Painley Consulting Inc., a company in Cokato, Minn, that develops software for managing audits of both IT and financial controls

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anything for investor confidence." O 49101

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Inc. found that companies that

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their security spending ate the

need to invest in auditing and

by Boston-based AMR Research

including IT equipment least

#### Regulatory Demands Put Spotlight On Asset Management Practices

Bresler & Reiner Inc. has found theif olectro a lot more emphase on IT asset management practices as a result of pressing requ

latory compliance demands. Earlier this year, the Rockelle Md. based real estate investment trust installed an industry specif c accounting software package

that's used by its various proper ty management companies. The package was supplied by Beawarton, Ore-based Timberline Software Corp., said Enc Clarke, Bregier & Remer's inter

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Indeed, regulatory requirements are forcing IT managers to track their IT assets more closely said Jane Disbrow, an ansied at Gartner Inc. "If you don't know whem all your inphose and soft-ware are located, how can you tell requisiony bodies that our-

tomer information is being kept phote? she said.

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arset tracking tools as their No. 1 security budget priority. - Thomas Hoffin ONE SAME-OX

#### Legacy Army Payroll Systems **Buckle Under Weight of War**

GAO audit finds that 95% of 348 active reservists have had problems with pay

BY MARC L. SONOINI The war in Iraq has beloed push antiquated U.S. Army payroll systems past their breaking point, leading to widespread problems for reservists, according to a U.S. Government Accountability Office report issued this month.

So severe are the problems caused by the aging, standalone Cobol-based mainframe systems that the GAO audit found that 95% of \$48 mobilized reserve soldiers had at least one payroll problem. The elitches included both overpayments and underpayments, as well as delayed disbursements. Some troops had numerous payroll problems, and it took more than a year to correct some of them. Both the system itself,

called the Defense Joint Military Pay System-Reserve Component (DJMS-RC), and the attendant human processes are "so error-prone, cumbersome and complex" that the soldiers affected can't be assured of timely and accurate payment for duty served, said the GAO study. The result has been a "profound adverse affect on individual soldiers and their families," it said.

#### System Limitations

One major weakness stems from a lack of integration between the DIMS-RC and related U.S. Army personnel applications. The payment system was also hampered by processing limitations, requiring "significant manual effort" to

make up for the shortcomings. The GAO cited one case in which a soldier received an overpayment of \$24,000 when a revocation of his mobilization status wasn't automatically reported to the payroll system due to the gaps between the personnel system and the

DJMS-RC. And because of the DIMS-RC's computational

limits, accounting for variables such as hardship duty requires manual input. The Defense Finance and Accounting Service (DFAS) which oversees the DIMS-RC. has acknowledged that the

system is "aging, unresponsive, fragile and a major impediment to efficient and high-quality customer service," according to the GAO.

Increased Risk of Error A DFAS spokesman said the DIMS-RC's limitations were exacerbated by the war in Iraq, prior to the war, the system primarily handled pay for drilling exercises and not for the 12- or 18-month deployments now taking place in the Middle East, "Anytime a extem requires buman inserven tion, you increase the risk." the spokesman said.

Acknowledging the system's limitations, the Defense Department has launched a train. ing program for support personnel and is rolling out an improved payroll system based on PeopleSoft Inc.'s PeopleSoft Enterprise, which will begin to go live next spring.

Once in place, the application will integrate the pay processes for reservists and active Army personnel and end the oeed for manual workarounds while improving stability and eliminating many of the problems identified by the GAO, said the enokeeman

That costom will later be phased out in favor of the lareer Defense Integrated Military Human Resources Systems before implementation can be-



(DIMHRS), which was first announced in August 2001 and is also built on PeopleSoft [QuickLink a4940]. Eventually. the human resources and payroll applications will function as a single integrated system. although progress on the DIMHRS implementation has been slow [QuickLink 41815]. While "significant design work has been completed" on the DIMHRS project, extensive testing will be required

gin, said Norma St. Claire, a DOD director of joint requirements and integration. Deployment to the Army, the first branch to go online, will start in the first quarter of 2006, she said. Sr Claire added that while the DOD wants the software to be as "vanilla" as possible, "sometimes there are mission requirements that are not supported by the commercial product, and a few modifications will be needed." O Agrice

ploy biometric technologies.

#### TSA Readies Security Systems Rollout

The Transportation Security Administration last week announced a series of pilot teers of IT-based programs to bolster airport security. And TSA Administrator David M. Stone said the agency is only "days or weeks" away from deploying a revamped version of its

controversial passengerscreening system. The TSA selected two additional airports - the Norman Y. Mineta San lose International Airport and the Helena

Regional Airport in Montana -- to participate in its Access Control pilot program. That brings the total number of airports in the program, which egan in April, to 10. The pilot program will test

a wide range of technologies. including radio frequency identification (RFID) systems. antipiggybacking systems, ad-

vanced video surveillance technology and various biometric systems. The wool of the tests, which will run through the end of the year, is to identify technologies that

personnel and vehicles to access secure areas of an airport. The announcement was welcomed by members of Congress, who expressed frus-

allow only authorized airport "good enough" for now Some lawmakers and airline industry executives arrand tration with the pace of tech- that TSA programs have been

Gates 15416 -

but are reluctant to do so until the Department of Homeland nology efforts to support Security issues guidance and homeland security. At a hearmakes clear what types of bioing of the House Transportametric systems will meet its tion and Infrastructure aviastandards in the future," said tion subcommittee last week. Rep. John Mica (R-Fla.), chair-Issumakore arried Come not to man of the House Avistion. let a desire to find the perfect subcommittee. "Someone at technology delay the deploy-DHS just needs to make a decision, and the rest will fall ment of something that is into place."

resucracy that

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three years after

the Sept. II. 2001.

terrorist attacks.

are willing to de-

Capt. Duane Woerth, president of the Air Line Pilots Ashindand by a lack of standards for higgserie technologies and a government bu-

sociation, said that when his organization began working with the IT industry and the government to establish a biometric standard, it expected the effort to take about six

\*Every airline employee [had his] background checked and was fingerprinted three years ago," said Woerth. "Three years later, we don't have anything. Three years "Many airports

later, we're told we might have a pilot program. That's unacceptable." C 49109

### Disaster Plans

orsers situations this use what they consider to be best procures and what one risk trade-offs and regulations are driving their strategies. They were also asked what imostinents in disaster recovers

they will make in the new year but security reasons, the banks were unwilling to share specific strategies publicly. hus Baumian sed a semanen

Total hadron to do ever thing right own. We differ to door at opinion tag our compa setting the money. It's putting case to say. Here's why we should be doing this

#### Cost Pressures

Vincinia Garcia, an analysi at Iowertsroup in Needham Mass, said the discussion is unique among financial services firms, which have been squeamish about sharing IT data because they consider it a competitive advantage But with disaster reginer

spending reasing to page out financial firms budgets that s roughly \$2 billion per tear for U.S. banks - building best practices is becoming a

This spending is growing

well anto double digits - an Participating Banks

chief operating officer at the time the fraud occurred - and with CA's board's salemore about whether it will attempt

increase of 12% a year," Garcia said. "There's a very concerted effort in the banking indutry to get a better handle on risk management spending at the operational level

Charles Wollmen, manueing executive director of the ESTC's business community standing committee, said there were several revelopors from the project. For example

banks said they are more rightly integrating recovery activities into IT systems designs and incorporating them into das to-das production practices Companies are also tach to reduce recovers times and eliminate human error

BY STACEY COWLEY

when shareholders voted

that the company's board

Joseph a proposal requesting

ecutive becauses paid based on

Submitted by Amulgamuted

financial results that are later

Bank LongView Collective In-

sestment Fund, the proposal came in the wake of an ac-

counting scandal that down-

tated CA's management ranks

and forced the company to re-

state 52.2 billion of revenue

The Amalesmused Bank

ulatory filing supporting its

proposal. The fund took pour

with the millions paid to exce-

utives - specifically, to fur-

mer CEO Samus Kumar, who

served as CA's president and

fund cored the scandal in a rep-

· Banks are increasingly usi

 Market dynamics are demanding that large firms provide faste every capabilities at lower cost and with less risk.

enoisi firms are increasingly integrating technology n ities into systems.

 Banks are giving increased consideration to large-scale disasts and are mitigating risks with multiple, wide-area recovery location Banks are moving toward internal recovery centers and away

from third-party recovery centers. tape backups and choosing do knowded mornoring of data over wide peopraphic areas Firms also said they're more stig toward internal bunker data centers and away from Providers such as Sunfaind Data Systems Inc. and IRM

The companies all said they want to spread their primary and backup data content forther agart to deal with regional power outages. 'Having the data centers five miles away is not going to be good enough." Wollmen said. They'd like to .. have data centers further

It's more the issue of you want your cake and eat it too." One idea floated by the banks in conjunction with longer-distance replication of data was to share physical disaster recovery facilities in remote locations, which would spread out she cost of building and running hot sites. "But the other issue is that you have so much at stake in these large data centers," Wollmen said "If sharing IT increases, then it's a balancing act involving The FSTC plans to meet

apart and still be able to do the backups and not lose data.

again on Oct. o to further discurs disaster recovery initiatives needed in the financial services industry. O 49106

#### CA Shareholders Back Management on Bonuses

Money paid to to recour those becauses. No doing so would be "a serious former executives omission," the fund argued. won't be revoked At the meeting, 26's of sores cast sided with t A, which op

posed the proposal. Computer Associates Interna Unlike recent financial scantional Inc. moided a result at dals at other compones, CAsits annual meeting last week. didn't involve fletimous neverror. Rather, to meet the anslost and investor espectations. adopt a policy of revoking ex-

the company premanurely recorenzed sales that should have been booked Later. Based on tirpets that later weren't met. CA awarded bonuses to top sales. and management executings.

Amalasmated found lone edds on winning passage of the proposal. A small number of investors hold a significant percentage of CAs shares and traditionally yete with the COMMENTAL N. INCOME AND ADDRESS OF THE PARTY OF THE PARTY

Also at CA's meeting, company chairman Lewis Rameri wid CA is considering interim CEO Kenneth Cron for the permanens spee. Cron initially said he wouldn't be a candidate in the company's CFO

CA is unlikely to fill at CEO vacancy before it resolves the CONTINUES SWEETING OF SOLICE rigation of its accounting fraud. The company has now expelled even executive implicated in the fraud as well as

those in top management roles at the supe criminal acrossis was perpetrated, but it remany subject to fines or other sanctions the government may impose as penalty for the corporate wrongdoing.

Ranieri said he is continuing to work with the povernment toward a settlement Earlier this year, GA offered \$10 mil hon to settle the charges against it, but the company hasn't commented on the novcrament's response to the offer. Rameri also said CA is reviewing the issue of comey no

sation paid to "certain offi cers" in prior swars. O 49102

Comley writes for the IDG News Service.

#### **EMC Unveils NAS Devices**

BY LUCAS MEASURE EMC Corp today appropried several network attached storage (NAS) decises that can be used for backing up servers user Ethernet using Internet SCSL EMC said it has boosted the performance on its NAS devices and interested cause of use of its graphical near interfaces

Tom: Asams, an analyst or Enterprise Strategy Group Inc. said the respectanter

faces make the NS family of NAS servers easy to manage. "even for nontechnical users." That point wasn't lost on Lorse Beam, director of IT at Low Firm Smith, Anderson Blount, Dorsett. Mitchell & Jernigan LLP in Raleigh, N.C. If you have less seehnical people, but you have a need for them to manage things, it

certainly helps," she said The NAS devices are certi fied as (SCSI targets by Microsoft Curp, which allows ad ministrators to consolidate their servers running Microsoft server products and

Linus Asaro lauded EMC for its introduction of the iSCSI protocol on its boxes, noting that NAS is better than a storage area network for certain filesharing applications, "And iSCSI makes sense in conjune tion with NAS because they both use the same Ethernet infrastructure," he said, "making it easy to install and cost-effective. O 49100

In a development that extends wireless WAN technology beyond fixed locations, Washington State Ferries plans to offer free Wi-Fi service to passenpers on ferryboats on its high-traffic Seattle-area routes this fall.

IT director Jim Long said the ferry system recently finished testing Wi-Fi service on the M/V Klickitat on the Port Townsend-Keystone route, which connects the Olympic Peninsula to Whidbey Island, about 43 miles north west of Seattle. Lone sold be would eventually like to have all 25 boots in the fleet connected to a wireless WAN that treats each "individual ferry boat like an office building" hooked up to a wired WAN. The fleet carries 26 million passengers per year between 20

ports of call That's exactly what Mobilisa Inc. now running a nearly yearlong test of Wi-Fi for Washington State Ferries, is delivering, according to Nelson Ludlow, CEO of the Port Townsend-based company. Mobilisa'has installed a wireless WAN that treats about 400 square miles of Pupet Sound \*like one bie WAN," with Wi-Fi service and wireless connectivity to the Internet available on ferryboats operating anywhere in the area. The Mobilisa tests are being funded by a SI million grant from the Federal Transportation Administration

#### Coverage Configuration

Ludlow said Mubilisa has installed a two-stage wireless system to provide coverage to Washington State Ferries. The first stage provides connectivity from the shore to the boats, with pointto-multipoint wireless gear from Sunnyvale, Calif.-based Proxim Corp. operating in the unlicensed \$8-GHz band Proxim's Tsunami MPIla system supports mobile roaming, which is key



on the Keystone side. Ludlow said. Mobilisa also had to develop its own switching algorithms for the handoffs between the fixed-wireless shore stations, so the signal from the vessel could bounce from one shore antenna to another throughout its run. Ludlow said Mobilisa experienced few outages gan in April; an aircraft carrier blocked the signal on one day

The Proxim equipment on the boats connects to BeaconPount Wi-Fraccess points from Chantry Networks Inc. in Waltham, Mass. The BeaconPoints of fer Wi-Fi connections using the 802 Hz standard, which operates in the 5-GHz unlicensed band, and the 802.Hb g standards, which use the 2.4-GHz band

Mobilisa has also outfitted the ferry docks with Wi-Fi BeaconPoints, allowing passengers to use the service while waiting for a boat. The Port Townsond access point also covers restaurants near the ferry dock, Ludlow said. The BeaconPoints are hooked into Chantry's BeaconMaster wineless switch, which allows Mobilisa to control all the BeaconPoints on all the boats from the Mobilisa network oper-

ations center in Port Townsend. The BeaconMaster 130, priced at \$12,995, is a Layer 3 switch that allows passengers to roam from dock to bear and to the dock again without initial. ing a new Wi-Fi session, said Luc Roy, senior director of product marketing and management at Changes The ferry system plans to issue a pe-

quest for bids on a ferrywide system once the trials end next March, Long. said. Because of the infrastructure costs involved, he said he expects any

permanent Wi-Fi system to be fee-based. Although the trial is focused on providing Wi-Fi service, Long said he anticipates using the network to support crews, including providing them with windess. voice-over-IP phone service, since cellular coverage for the boars



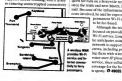
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Rebuilding the World's Email Infrastructure



apart and still be able to do

your cake and eat it too."

One idea floated by the

longer-distance replication of

data was to share physical dis-

aster recovery facilities in re-

more locations, which would

spread out the cost of building

and running hot sites. "But the

other issue is that you have so

much at stake in these large

data centers," Wollmen said.

"If sharing IT increases, theo

risk would be a concern. So

it's a balancing act involving

risk and cost

banks in conjunction with

the backups and not lose data. It's more the issue of you want

#### Continued from page I Disaster Plans

aste networking environments Firms were asked what recovery strategies they use, what they consider to be best practices and what cost/risk trade-offs and regulations are driving their strategies. They were also asked what investments in disaster recovery

they will make in the next year. For security manner, the banks were unwilling to share specific strategies publicly. but Baumann said a common concern was the need to find a data recovery methodology that's efficient and scalable and meets the needs of inter-

"We'd all like to have an open checkbook to do everything right now. We'd like to do it at a price tag our compa-nies are willing to spend," Baumann said. "It's not so much getting the money. It's putting together the right business case to say, 'Here's why we should be doing this."

#### **Cost Pressures**

Virginia Garcia, an analyst at TowerGroup in Needham. Mass, said the discussion is unique among financial services firms, which have been squesmish about sharing IT data because they consider it a competitive advantage.

But with disaster recovery pending totaling 1% to 2% of financial firms' budgets that's roughly \$2 billion per year for U.S. banks - building business continuity through best practices is becoming a necessity.

"This spending is growing well into double digits — an

Participating Banks

increase of 17% a year." Garcia said. "There's a very concerted effort in the banking indus try to get a better handle on risk management spending at the operational level."

Charles Wollmen, ma ing executive director of the FSTC's business continuity standing committee, said there were several revelations from the project. For example,

tightly integrating recovery activities into IT systems design and incorporating them into day-to-day production practices. Companies are also moving toward more automation to reduce recovery times and eliminate human error. Garcia agreed with those findings, saying banks are

quickly moving away from

banks said they are more

tape backups and choosing disk-to-disk mirroring of days over wide geographic areas Firms also said they're move ing toward internal bunker data centers and away from third-party recovery service providers such as SunGard Data Systems Inc. and IBM.

al power outages. "Having the data centers five miles away is not going to be good enough." Wollmen said. They'd like to

## **Key Project Findings**

The companies all said they want to spread their primary and backup data centers farther apart to deal with region-

The FSTC plans to meet again on Oct. 6 to further discuss disaster recovery initiatives needed in the fi ... have data centers farther services industry. O 49106

#### CA Shareholders Back Management on Bonuses

Money paid to former executives won't be revoked

BY STACEY COWLEY Computer Associates International Inc. avoided a revolt at its annual meeting last week when shareholders voted down a proposal requesting that the company's board adopt a policy of revoking executive bonuses paid based on

financial results that are later revised. Submitted by Amalgamated Bank Long View Collective Investment Fund, the proposal came in the wake of an ac-

counting scandal that devastated CA's management ranks and forced the company to restate \$2.2 billion of revenue.

The Amalgamated Bank fund cited the scandal in a revulstory filing supporting its proposal. The fund took issue with the millions paid to executives - specifically to former CEO Sanjay Kumar, who served as CA's president and chief operating officer at the time the fraud occurred - and with CA's board's silence about whether it will attempt

to recoup those bonuses. Not doing so would be "a serious omission," the fund arrand At the meeting, 76% of votes cast sided with CA, which opposed the proposal.

Unlike recent financial scandals at other companies, CA's didn't involve fictitious revcaue. Rather, to meet the analyst and investor expectations. the company prematurely recognized sales that should have

been booked later. Based on targets that later weren't met, CA awarded bonuses to top sales and management executives.

Amalgamated faced long odds on winning passage of the proposal. A small number of investors hold a significant percentage of CA's shares and traditionally vote with the

company's management Also at CA's meeting, company chairman Lewis Ranieri said CA is considering interim CFO Kenneth Cron for the permanent spot. Crop initially

said he wouldn't be a candidate in the company's CEO search CA is unlikely to fill its CEO

vacancy before it resolves the continuing government investigation of its accounting fraud. The company has now expelled every executive implicated in the fraud as well as

those in top management-roles at the time criminal activity was perpetrated, but it remains subject to fines or other sanctions the government may impose as penalty for the cor-

porate wrongdoing. Ranieri said he is continuing to work with the government toward a settlement Faction this year, CA offered \$10 million to settle the charges

against it, but the company hasn't commented on the government's response to the offer. Ranieri also said CA is reviewing the issue of compensation paid to "certain officers" in prior years. O 49102

Cowley writes for the

IDG News Service.

#### **EMC Unveils NAS Devices**

EMC Corp. today amounted several network-attached storage (NAS) devices that can be used for backing up servers over Ethernet using Internet SCSL EMC said it has boosted the performance on its NAS devices and improved ease of use of its graphical user interfaces.

Tony Asaro, an analyst at Enterprise Strategy Group Inc., said the revised interfaces make the NS family of NAS servers casy to manage "even for nontechnical users." That point wasn't lost on Lorie Beam, director of IT at law firm Smith, Anderson, Blount, Dorsett, Mitchell & lernigan LLP in Raleigh, N.C. "If you have less technical

people, but you have a need for them to manage things, it certainly belos," she said The NAS devices are certified as ISCSI targets by Micro-

soft Corp., which allows administrators to consolidate their servers running Microsoft server products and Linux Asaro lauded EMC for its

introduction of the iSCSI protocol on its boxes, noting that NAS is better than a storm area network for certain filesharing applications. "And iSCSI makes sense in conju tion with NAS because they both use the same Ethernet infrastructure," he said, "making it easy to install and cost-effective." O 49100

In a development that extends wireless WAN technology beyond fixed locations, Washington State Ferries plans to offer free Wi-Fi service to passengers on ferryboats on its high-traffic Seattle-area routes this fall

IT director Jim Long said the ferry system recently finished testing Wi-Fi service on the M/V Klickitat on the Port Townsend-Keystone route, which nects the Olympic Peninsula to Whidbey Island, about 43 miles northwest of Seattle. Long said he would eventually like to have all 25 boats in the fleet connected to a wireless WAN that treats each "individual ferry bost like an office building" hooked up to a wired WAN. The fleet carries 26 million passengers per year between 20 ports of call

That's exactly what Mobilisa Inc., now running a nearly yearlong test of Wi-Fi for Washington State Ferries, is delivering, according to Nelson Ludlow, CEO of the Port Townsend-based company. Mobilisa has installed a wireless WAN that treats about 400 square miles of Puget Sound "like one big WAN," with Wi-Fi service and wireless connectivity to the Internet available on ferryboats operating anywhere in the area. The Mobilisa tests are being funded by a \$1 million grant from the Federal Transportation Administration

Coverage Configuration Ludiow said Mobilisa has installed a

two-stage wireless system to provide verage to Washington State Ferries. The first stage provides connectivity from the shore to the boats, with pointto-multipoint wireless gear from Sunnyvale, Calif-based Proxim Corp. operating in the unlicensed 5.8-GHz band. Proxim's Tsunami MPIla syste supports mobile rosming, which is key

from the boats as they move from the coverage area of the fixed-link wireless antennas installed on one side of a route to antennas on the other side. The Port Townsend-Keystone run doesn't allow line-of-sight coverage, so it required the installation of two antennas

on the Keystone side, Ludiow said. Mobilisa also had to develop its own switching algorithms for the handoffs between the fixed-wireless shore stations, so the signal from the vessel could bounce from one shore antenna to another throughout its run. Ludlow said Mobilisa experienced few outages in its tests with the Klickiter, which began in April; an aircraft carrier blocked the signal on one day.

The Proxim equipment on the boars connects to BeaconPoint Wi-Fi access points from Chantry Networks Inc. in Waltham, Mass. The BeaconPoints of fer Wi-Fi connections using the 802.11a standard, which operates in the 5-GHz undicensed band, and the 802 11h/e standards, which use the 2.4-GHz band Mobilisa has also outfitted the ferry docks with Wi-Fi BeaconPoints, allowing passengers to use the service while waiting for a boat. The Port Townsend access point also covers restaurants near the ferry dock, Ludlow said.

The BeaconPoints are hooked into Chantry's BeaconMaster wireless switch, which allows Mobilisa to con trol all the BeaconPoints on all the boats from the Mobilisa network ope ations center in Port Townsend. The BeaconMaster 130, priced at

\$22,995, is a Layer 3 switch that allows sengers to roam from dock to boat and to the dock again without initiating a new Wi-Fi session, said Luc Roy, senior director of product marketing and management at Chantry. The ferry system plans to issue a re-

quest for bids on a ferrywide system once the trials end next March, Long said. Because of the infrastructure costs involved, he said he expects any permanent Wi-Fi system

to be fee-based. Although the trial is cused on providing Wi-Fi service, Long said he anticipates using the network to support crews, including prov ing them with wireless voice-over-IP phone

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## Open-Source Obligations

OMEONE in the open-source community should send a nice bottle of champagne to Charile Ward, manager of technical architecture at Duke Power. What's worth celebrating? The way Ward and his crew of developers poured 1,000 hours into building a framework to support application development on Microsoft's. Net technology, then turned their work

ower to the open-source community ("Utility to Make IT Framework Open-Source," Quick-

Link 48960). What made this frontpage news for us last week was the significant size, relative rarity and potential impact of this corporate embrace of open-source. It's one thing for developers to turn over a few sanc-

turn over a few sanctioned pieces of corporate code to their open-source playmates. It's quite another for a major utility to throw open the doors to the results of a costly, complex software project.

Open-source just climbed up another rung on the enterprise ladder. This is somewhat of an experiment to see how much value can be gained from the open-source comnuairy. Ward soil. Building a framework for application development doears if give an energy company any particular competitive advantage, he observed, but getting contiued support and improvements donated by a dedicated community of

developers is clearly a benefit.

The appeal of open-source is rolling rapidly across the corporate indicacept. More than 60% of 140 companies surveyed this spring by companies surveyed this spring by excrete the residence in the source produces—everything from source produces—everything from the source produces are desired to the source and development tools to the source of the source

urned their work
"Open-source is just a more efficient, effective software business model," says John Roberts, founder of SugarCRM, one of the first opensource business applications of the model, and the second struct wenture funding. "It's

more than just cheaper software. It's a shift, a movement reshaping the dynamics of a modern software company."

I think he's right about those fundamental shifts, which are also changing — and further complicating— the landscape of software li-

cameriata surus. More are asso changling — and further complicaing — the landscape of software licensing. For example, even at companies where open-source products aren't in evidence yet, the lines of responsibility are blurring as venders fold portions of open-source code into their own proprietary products.

The second secon

One CTO I spoke with last week had just encountered a novel situation with a new software package into manager vendor. His developers from a major vendor. His developers from a major vendor. His developers from a major vendor. His developers from a fine to the code and sterned by the standard of the code and sterned by the code of the code

tions involved in open-source even if it's not in-house yet.

"What you need to look out for is what you give up" as well as what you gain in an open-source licensing agreement, asys Larry Rosen, author of Open Source Licensing Software Freedom and Intellectual Prosects.

agreement, tays Larry Moden, author of Open Source Licensing, Software Freedom and Intellectual Property Law (see "No Free Lunch", Opicic Link 46482). If you choose to share your open-source development with other companies, for example, you may be obligated to use the same license with everyone.

It will be foreignationally the content of the companies of the content of the companies of the content of the c

It will be fascinating to watch how Duke Power proceeds with its opensource experiment, its licensing arrangements and the business value that comes from it. Here's hoping it'll be worth another bottle of champagne. 0 46072 DAN GILLMOR

#### Microsoft Security's Weak Link

NIDOWS XP Service Pack 2 is now making its way onto computers. This major upons is a step forward for a company that has had an alyannal record on security, and we should be happy for thet much. But it's only one overdue action. Users should also install more capable appropriate and extra proposed in the service of the service property and the service property advantages or reminds us of a situation that Microsoft has never property ad-

dressed: the retail/computer security problem.

If you buy a new Windows PC for your home and hook it up to a DSL service or a cable-modem line without

service or a cable-modem line wi first installing a hardware or software frewall, your computer could well be compromised by hackers before you've even had time to install Microsoft's "critical" securify updates.

The PC may be turned into a spammer's toy, a zombie spewing thousands of mail messages per day, some of which could clog corporate networks. Or, worse.

it may now have a keystroke logger in place, snarfing up personal and corporate log-ons and passwords and sending them who

knows where.
This is a clear and present danger
to corporate networks. If an infected
home PC gets connected to the corporate network via a VPM or other
means, all the work IT does internally

to keep things safe could be wrecked. Yet this is reality. Why? Because Microsoft doesn't require computer makers and retailers to self their PCs with totally updated operating systems. The computers likely will have XP with the most recent service pack, but no subsequent updates.

The same is true if you buy the Windows XP software by itself, in the box. 2t, too, will probably need updating to he even remotely safe. In other words, despite monopoly profits and legions of talented programmers. Microsoft continues to allow retail versions of Windows to go out the door with

known defects. Why? Yes, there are complications in the retail channel. Microsoft and the man ufacturers would have to put in a great deal more effort, and some added expense, to do the right thing. Given the wafer-thin margins in PC retailing, you can't expect the manufacturers or re tailers to voluntarily take this on. That's wby Microsoft should step in and do it for them.

At last count, Microsoft had more than \$50 billion in cash. It plans to give some of that back to shareholders. Fine. But how about using some of it to make sure that computers sold at retail have the latest update of the operating

system, with the flrewall turned on? Microsoft will never do that voluntarily. Its track record shows it to be a company that offloads as many costs as possible onto captive manufacturing

"partners" that have no alternatives. The logical people to intervene in this situation are state and federal consumer-protection officials. They'd never allow auto companies to sell cars with serious known defects. Why do they permit Microsoft and the PC mak-

ers to do so? IT should be yelling from the rooftops about this. The situation is pett better only at the margins, and that's

not nearly good enough. O 48990 PIMM FOX

#### Keeping the Skies Safe From Teddy

THATEVER your political stripes, you would probably agree that Sen. Edward Kennedy (D-Mass.) is not a terrorist. But when he tried to board a US Airways flight at Reagan National Airport near Washington this past spring, he was stopped because his name appeared on the government's secret

no-fly list. This database is supposed to he one of the many weapons in the country's fight against terrorism. And altho the list hasn't led to any arrests, it has caused approximately 350 U.S. citizens to either be delayed or denied the right to travel. The FBI won't reveal who is on the list, which is maintained by the Transportation Security Administration, a

branch of the U.S. Department of Homeland Security. which is run by Tom Ridge. After that first incident, Kennedy, who you'd think is recognizable, was stopped repeatedly, even after his

aides called the TSA to clar ify the matter. His name was removed from the list

only after be personally phoned Rider The reason Kennedy was on the list in the first place? Apparently, the name "T. Kennedy" has been used by a suspected terrorist as an alias.

fe that all it takes? Is this the level of sophisticated technology being deployed to fight the war on terror? You might as well digitize the phone book.

Of course, the airline says it's the TSA's problem, and TSA officials say they're just doing their job and that glitches - well, they just happen. And,

ORDING TO the article TIAA

A Cookstate to the state of E-vot-

survey by the Information Technolo-

by Association of America showed

that 77% of registered voters are

unconcerned about the security of

e-voting systems," and ITAA Presi-

ics who claim to be concerned

about the security of e-voting sec

dent Harts Miler believes that "crit-

no"10uckLink 482101, a recent



ves, they're going to get a bisser, better system. And while the government says the TSA will issue a letter for those who are mistakenly on the list how will you know you need the letter unless you're stopped at some air port or border crossing? I have an English friend who possesses a valid ITS

proven cord and has much ad legally in the U.S. for years. A technology professional who regu larly travels from London to Seattle, he was stopped by U.S. immigration officials because he had a U.K. address on oor of his documents. When he tried

to explain that he goes back and forth on business, he was usherred into a small room and grilled by officers, who made it clear that they didn't believe a word of what he was saying. Finally, after a rather perve-rattling

experience, a supervisor was called to

the scene, inspected the documents and let my friend proceed. Technology is often touted as savier or scoundrel when it comes to big gov

erament projects. The government is spending boatloads of borrowed cash to install massive databases designed to link all sorts of lists, from tallies of delinquent student loans or driver's licenses to flight manifests. It's an interesting idea to build a web of interlocking information to true terroriers. But the execution is a direct contradiction to the openness, freedom and common sense that characterizes civil society. The moral of this story isn't that

technology is the culprat. Using IT to make the government more efficient, more transparent and more accessible to more people is a liberating and powerful concept. Every day, individuals click through the business of renewir driver's licenses, e-mailing elected officials or checking on government programs, using the sublime magic of the microchin. But technology that's misused is a

problem. The no-fly list is a no-win in the fight against terror Q 48972

#### WART OUR OPHIONS

Non columnsts and links to archives of provious columns are on our Web silv

#### READERS' LETTERS

work as THE IT section of a bank, and if we were to go about our normal operations without any hard-copy audit trais, the lederal government would shull us down or a heartheat. How is a that some fring as important as selecting the that who will turn and recomment our country doesn't warrant the some scruliniy as processing our money?

terms are mady using the issue to Pittsburgh. push a political agenda on behalf of

Critics Fire Back at ITAA Over E-voting

the open-source community. I'm pretty sure those same 77% of required voters aren't concerned about the security of their home PCs. given the widespread problem of wome, viruses and spywere.

If asking proponents of oper source software to comment on the security of electronic voting systerns is, as Miller says, Tile galang a bunch of dergamen what they think of premarkal sex." then arisen and users about computer security is like asking a bunch of prostauties what they think of family values.

Joe Sestirich IANA

Frank Thomas

THE RIA'S views and statistics on a strokescreen. This e-volno sous has nothing to do with open-source vs. prognetizm, and all to do with religibility spourity and auditability I belong to an e-voting watchdag group in North Cerolina

and I would say 90% of the menbers have no dee what open-source is. They just want a verifiable election. Programmer Greenshoen NC

THE REAL'S statement is ridical load Del the survey respondents know what "security of e-votng setting mans? This is a world

where 95% of the people correct program their VORs. My guess is that most voters would think a polowner at the poling place constfalls good security for the e-vinion systems. Read Computerworld's Shark Tank to get a better under standing of the level of computer knowledge out there. S. Duffy Senior system analyst.

IF E-WOTING is as flawed as the bac in Harris Miller's justification then we need to bury the idea or mediately. The percentage of people ununformed about an essue does nothing to condemn or delend it.

Minnespolie

Chuck Hinkle Houston M my 27 years in the industry have no clue about what a secure

computer system involves. I've over had a conversation with someone who writes software for the internet as a profession who believes that simply restricting traffic to Port 80 gan to keep up with the security

will keep your server splip II 77% of registered voters be-

patches on their PCs, stooped opening e-mails and executing at tachments from unknown sources. then maybe I would begin to trust their comon on a secure computer pattern that then the rough is not open-source vs. propriety software. it's about the ability to audit the two tem Until major stodes are made in computer security, including getting nd of unethical people from the

computer profession, a paper Itali will be a requirement to guarantee the accuracy of a votino system Michael Quipley

Systems analyst programming coordinator, New Knozville, Okio

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## TECHNOLOGY

#### Directory Assistance Virtual directories provide applica-

tions with a single point of access to user data when the information requested is located in more than one directory. Page 24

#### Fuzzy Logic

While Boolean logic solves problems with a binary, yes-or-no answer, fuzzy logic solves problems when data is vague or imprecise. Page 26



## SECURITY MANAGER'S JOURNAL Company Secrets Hit the Exits Mathias Thurman discovers that a lax polic has allowed executions who are longitude him

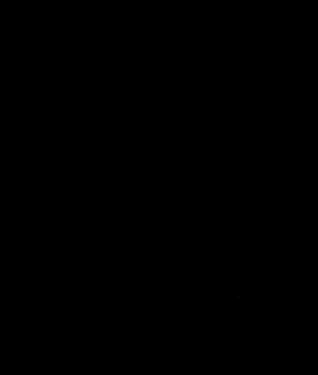
Mathias Thurman discovers that a lax policy has allowed executives who are leaving his company to depart with laptops loaded with sensitive e-mail, applications and data. Page 27

## CRIME INVADES CYBERSPACE



Once the work of vandals, viruses and other malware are now being launched by criminals looking for profits. BY DAN VERTON

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#### Directory Assistance

Virtual directories provade applications with a sangle point of access to user data when the information requested is located in more than one directory. Page 24

#### quickstuay Fuzzy Logic

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### SECURITY MANAGER'S JOURNAL Company Secrets Hit the Exits Mathias Therman discovers that a lay policy

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## CRIME INVADES CYBERSPACE



Once the work of vandals, viruses and other malware are now being launched by criminals looking for profits. BY DAN VERTON

NTIVIRUS RESEARCHERS have uncovered a startling increase in organized virus- and worm-writing activity that they say is powering an underground economy specializing in identity their and spann. "The July outbreak of MyDoom.O

"The July outbreak of MyDoom O was yet another reminder that spamers are now using sophisticated, blended threats that mix spam, viruses and denial-of-service attacks, according to Andrew Lochart, director of

product marketing at Postini Inc., an e-mail security services provider in Redwood City, Calif. In July alone, Postini's customers reported more than 16 million directory harvest attacks, which are attempts by spammers to hijack a company's entire e-mail directory. The link between viruses, worms

The link between viruses, worms and the underground criminal economy, however, goes back to long before the latest version of MyDoom, says Mikto Hypponen, antivirus research director at F-Secure Cope, in Helsinki, Finland, Starting with the initial outbrack of MyDoom in January, Hypponen began to notice that what had previously been considered little more than a rogue virus-writing subculture actually had a significant link to organized efforts to use malicious code to make moreover.

make money.
"MyDoom got press coverage because of the denial of-service attack in launched against SCO and Microsoft Corp.," says Hypponen. "But nobody was paying attention to what was happening behind the scenes." And what was happening, according

to Hypponen, was the beginning of a concerted, unabashed effort to turn virus and worm infections into cash. Eight days after MyDoom.A hit the Internet, somebody scanned millions of IP addresses looking for the back.

Continued on page 22

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Continued from page 19

door left by the worm, said Hypponen. The attackers searched for systems with a Trojan horse called Mitglieder installed and then used those systems as their spam engines. As a result, millions of computers across the internet were now for sale to the underground

spam community.

Of course, spamming viruses aren't new. Security professionals have been dealing with them for years. However, the appearance of MyDoom and more recent viruses and worms signaled the beginning of much larger enoblems.

says Hypponen.

By the end of January, Internet users were busy dealing with the Bagle mass mailer. And although the first version wasn't particularly successful, at least a dozen variants soon followed, includ-

ing variants that carried Mitglieder.
But the real clues that organized
gangs were using Bugle and MyDoom
to sell spam prouies — as well as links
to phony Web sites that exist only to
harvest identities and personal financial information — came when the
writer behind Nextious Roused a direct

challenge to the so-called professional virus writers.

In addition to attempting to remove Bagle and MyDoom from infected

computers, Netsky conducted a denialof-service attack against Web sites known to be fronts for identity thirves, according to Hypponen. When F-Secure analysts decoded the encrypted messages hidden within a

encrypted messages hidden within a subsequent version of Bugle (Bugle, I), they discovered a threat of a virus war if the Netsky author continued to "nuin" the "business" of the professional virus writers.

"We have information that the writers of both My Doom and Bagle may be Russian immigrants living in various European countries," says Hypponen. Whoever is behind it, they are organized and running a thriving business,

Brian Dunphy, director of global analysis operations at Symantee Corp.'s Security Operations Center in Alexandria, Va., acknowledges that it's difficult to discern the intent behind many viruses and worms in the wild. In addition to planting back doors, some worms, such as the latest My-Doom variant, have embedded peer-

says Hypponen.

to-peer updaring capabilities, he says.
"What we used to see are worms and viruses that did not have a reach-back-and-call-home capability," says. Durphy: "What we saw with My Doom, however, was that infected systems were aware of other infected systems.



and they automatically built a peer-to-

peer network of soets."

In fact, Symatter's malysis of the recent MyDoom M outbreak discovered
a mechanism that's used to maintain a
list of all known infected systems and
permits the worm's suther to update
all MyDoom M-infected systems with
new arbitrary malicious code with Eytle risk of its network being hijacked
by rival worm ambrox, says Alfred

Higgs, senior director of Symantec Security Response. In addition to propagating spam proxies and setting up peer-to-peer netwocks, viruses and worms are being used to install Web servers on vulnerable systems. Those Web servers are then used to host everything from pornography and pirased software

sites to fake banks, Hugos says.
Underground bartering and selling
is conducted on Web sites such as a
Russian site that, among other things,
sells subscription services to compro-

mised computers.

Various other Russian and Chinese
message boards exist for the sole purpose of selling spam hosts. Accepted
payment methods, shown clearly on
the Web pages, include E-gold transactions and WebMoney and Western
Union money transfers. Incincially.

organized e-criminals don't accept credit cards. For Sale: Your ID

Viruses and worms carrying Trojan horse code are also powering massive identity theft rines.

At sites like www.oemed.biz, www. mego-oem.biz. http://huge-soles.info and www.oditanticrustbank.com, among bundreds of others, users are presented with the opportunity to buy popular software at tremendous discounts, sometimes at one-tenth the re-

tail price. And while these sites look authentic, Hypponen offers a word of caution.

"The one thing all of these cites have

The one thing all of these sites have in common is that none of them exist. he says. "If you buy something from them, you'll get nothing, and they will never charge your credit cerd. But what they will do is steal your identify." In fact, identities and bulk credit can'd dumps? are available to the high-cest bidder at some sites.

Tracking down virus writers and other online criminals can be more difficult than anybody ever imagined. It's particularly difficult in the case of fraudulent domain-hosting schemes, which often use IP addresses that expire every two minutes. Hypponen

says.
"If you refresh these sites, the domain name points to a different IP address every two minutes," he explains.
"And then if you look at the IP addresses, you'll see that they are in places like Japan, Portugal, Brazil, Canada and

Japan, Portugal, Brazzi, Canada and elsewhere." Hackers and malicious-code writers are increasingly automating the Internet shell game that keeps many of

them one step ahead of law enforcement. The Kuwaiti hacker group QSSee is a case in point. On March R, a Russian source reported to F-Secure analysis the exis-

tence of a Trojan horse created by Q8See called Slacke. But what made Slacke unique was the extraordinary lengths to which its authors went to hide their tracks and the mystery that remains about the group's intent.

First, the worm downloaded code from a Web site hosted in So Tomé and Principe, a small island nation located off the Atlantic coast of Africa. Analysis by F-Secure, however, showed that the domain rights for the Web site had been sold to a company in Sweden. But registration information listed the company name as JordanChrt and the location as Irbid, Jordan. The contact name wat There.

As thousands of infected comparers downloaded the malicious code from the Web server in São Tomé and Principe, they were then linked to an Internet Relay Chat system operated

by CNN in Atlants.
Once logged into CNN's IRC server, the systems connected to an IRC channel in Mexico called Noticias. And when Hypponen and his analysts stud-

ied the channel, they were astonished at what they saw. "There were 20,000 clients just sitting on the channel doing nothing. They looked like people, but they were

ting on the channel doing nothing.
They looked like people, but they were book," be says, referring to programs that perform repetitive, automated functions.
The bots, however, weren't alone.
According to Hypponen, three Kuwaiti

users, presumably members of Q8See, were sitting on the channel and sending commands to the bost to scan various ranges of IP addresses. And while CNN eventually shut down the chat server, nobody knows for sure what the hackers were doing.

"We may never know," says Hypponen. "Whether or not this is traditional organized crime doesn't matter — because they are organized, and what they are doing is criminal." 0 48734

## I.T. DEPARTMENTS THAT MAKE IT HAPPEN RUN SAP



imagne LT, that's flexible enough to help you reach your business goals queckly and efficiently. The S4F NetWester: platform quecks integration and malars the pelo of imanging applications a for more imanageable. So you can make changes and implement new strategies faster than ever. Virt sup-com/intervator or all 100 880 EVEZ to some reportunes as the arms.

HE BORING CO has a diverse directory infrastructure that includes products like Sun ONF Microsoft Active Directory and Oracle. Having a heterogenous directory infrastructure in a company the size of Boeing is a practical necessity, but it also creates headaches for the aerospace company, which has 900 directory-enabled applications that serve

some 150,000 employees. The problem is that most identity management systems, Web portals and other directory-dependent applications are designed to access just one directory, but the data each requires may reside in many. Even when requested data is available in a single repository, it may not be structured in

the way the application wants to see it. As a result, getting each application to work with the directory infrastructure can become a big project, says Marry Schleiff, a cyberidentity specialist at the Boeing Shared Services Group.

\*Every requirement means changing an existing directory without breaking it for existing clients or setting up a new directory," Schleiff says. A third option, customizing the application, can be costly. Unlike with internal application development projects, the money spent customizing a commercial application can't be leveraged by

other applications, and customization adds to the amount of code that must be maintained, be says.

To solve the problem, Schleiff is turning to virtual directory software. an emerging class of products that he

says offers a more flexible approach to providing applications with access to user account data and other attributes. Boeing has piloted and is ready to begin a phased rollout of Virtual Directory Engine from OctetString Inc.

in Schaumburg, Ill. To the application, the virtual directory looks just like the target directory it expects to see. It takes requests for data from the application, retrieves it from the back-end directories, performs any transformations needed and presents it to the application in the format required. No modification to the application or tar-

get directories is needed. "We're deploying it to support many client applications. We're trying to create a shared service," Schleiff says.

#### The Virtual Difference

Virtual directories are similar to another took metadirectories. Both can access user data from different repositories. Metadirectories, a core element of user provisioning tools, copy data into a new repository that must be created, maintained and synchronized. The need to keep data updated can be a headache when data in source direc-

tories changes frequently. Some busi ness units may also object to the idea of creating a second repository for customer data that will be outside of their control, citing regulatory or strategic concerns.

In contrast, virtual directories access the attributes requested from each directory or database on the fly. The software uses a cache to speed performance but typically doesn't store data locally Virtual directory deployments can cost substantially less than alternative

strategies. The software, licensed by the server, may cost \$10,000 to several hundred thousand dollars for a large project. But that's a small price to pay compared with the cost of rebuilding

an enterprise directory or reworking each application, says Schleiff. "Anytime you're considering spending money to customize an application so that it can use your directory, you should look at virtual directory technology," be says. The technology can even help appli-

cations that aren't sophisticated enough to deal with more complex directory mechanisms such as Lightweight Directory Access Protocol (LDAP) referrals. A virtual directory can follow the reference to locate the data and return it to the application. But virtual directories also have a few drawbacks. Although they don't create an additional repository, they do create another layer of complexity because they require applications to access information indirectly through the virtual directory server rather than going to the directory that actually

holds the data "There's a discomfort with adding another layer of infrastructure. If sum-on, our critical applications are

something happens to our Web single down," says Schleiff. "Virtual directories . . . both simplify and make the service offering more complex."

Another potential weakness: Virtual directories are only as good as the directories behind them. If a directory tends to go down frequently or offers poor response, a metadirectory that has its own data source may be a better choice. But users say virtual directories have advantages here, too. They have load-balancing and fail-over features that can be configured to redirect a request to an alternative data source. If the connection drops in the middle of a request, for example, the virtual directory retries another repository and returns the rest of the data

#### Starting Small

make the virtual directory an integral part of its directory service, but programmers and directory specialists at many large companies have been quietly using the tools for several years for specific, one-off applications or departmental development projects. leff Sobel, a senior analyst at New York Independent System Operator (NYISO), a wholesale electricity pro-

Boeing is one of the first companies to

# ASSISTANCE

Virtual directories offer a fast and efficient way to get identity management software and other directorydependent applications online. By Robert L. Mitchell

vider in Albany, was building a Web application to let customers place bids over the Internet. He chose RSA Security Inc.'s Clear Trust access management software to authenticate users. but the product could point to only one LDAP directory. His user data resided in an Oracle database and an LDAP directory. At RSA's suggestion. he brought in RadiantOne virtual directory software from Radiant Logic Inc. in Novato, Calif. Sobel says he had the software up and running within a month. "It's not a long cycle time to get

it running," be says. NYISO wasn't always sold on virtual directories, however. The company looked at the tools a year ago and decided that most weren't mature enough. Although a few virtual directory tools have been around since the late '90s, they've improved significant ly since then, says Gerry Gebel, a Fairfax, Va.-based analyst at Burton Group Several vendors have added graphical point-and-click user interfaces to the tools that make setting them up much casier than the previous, text-based interfaces and configuration files. "But you still have to understand LDAP. database structures and things of that

nature," Gebel cautions. The manager of directory services at a large family entertainment company. which he asked not be named, says a virtual directory made sense for his application for both political and technical reasons. The company uses a flat directory structure, but its identity management software expects user data to be organized hierarchically. Usine a metadirectory to transform the ly small, privately held firms with few-

#### Virtual Players

or only a vertage directory, while offer a mix of products and service

data was out because management "really put the hammer down about replicating data to different business. units," he says. Rebuilding the source directory would have required eight months, versus just one month to deploy a virtual directory. The rechnoloxy provided a hierarchical view of the

data "without provisioning our data all over again," he says Choosing a virtual directory means looking at very small vendors, since the big directory players have yet to offer full-blown virtual directory products. The virtual directory vendors about a haif-dozen in all - are typicalgran their product lines, while

ing started with a Jose LDAF by Engine. The product has fleat joining, mapping and trave adds features that make the product east to use. Oblic resells the technology with its CoreO product.

minds SA or Lisbon, Portugal, is the at vendor in the group; it locuses on nce, large scale display

er than 30 employees and anywhere from five to 50 or more customers. Yes the vendors count many of the world's largest companies among their customers. "The larger and more complex the organization, the more need they have for this technology," says Gebel. One way to mitigate the risk of going

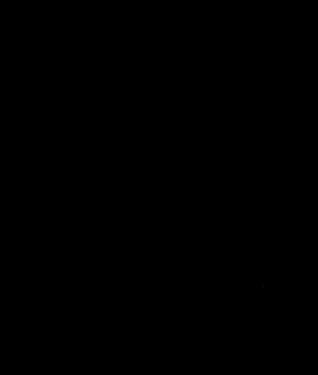
with small vendors is to leverage agreements they have with identity management software vendors and integrators. Radiant Logic has agreements with RSA and Accenture Ltd. for example, while OctetString has allied itself with Oblix Inc. Users can take other steps as well, says Gebel, "If you're implementing something that is nder product. Parter based

higher risk, you need to take measures such as getting source code in escrow or going through a larger vendor" he says Another potential concern is scalsbility, says Gebel, although windors disagree. While the products have been shipping for several years, they're evolving and have yet to prove themselves in many large-scale deployments, he says. But those concerns don't bother NYISO's Sobel. He says be plans to use single-sign-on project involving more

the technology as part of a broader, than a half-dozen directories, "Because we aren't tied down to a true directory ...it's easier to add repositories as time moves on." O 48758

Metadirectory Virtual Directory





vider in Albany, was building a Web application to let customers place buls over the Internet. He chose RSA Security Inc.'s Clear Trust access management software to authenticate users. but the product could pount to only one I DAP directors. His user data resided in an Oracle database and an LDAP directors. At RSA's suggestion. he brought in RadiantOne virtual directors software from Radiant Logic Inc. in Novato, Calif. Sobel says he had the software up and running within a month, "it's not a long cycle time to get

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nature," Gobel caurions

RMC Sobware Inc. include Radiant Logic's technology in their product lines, while MaXware has partnered with Hammonian England-based megrator BT Syntegra

OctotString Started with a Java I DMF directory that if transformed into ex Victoria Directory Engine. The product has flexible joining, mapping and transformation linetures and a newly released 3.0 version. adds features that make the product easier to use. Oblix resells the technology with its CorefD product

Symiate SA in Liston Portugal is the smallest vendor in the group it locuses on high-performance large scale deploy-

ments Telecommunications companies are

among the early adopters of its Directors Extender product Pars-based Calendra's Directory Manager includes a complete component. The vendor has expensed in developing Yellow Pages type applications. Stars Geber

Persistent Systems Pyt. an established software development outsourcer in Plane India, is by far the largest vendor in the group it has expenence building metadesc lony connectors for other vendors. It has about 1900 employees although only about 30 support enQuire Virtual Directory That product, part of the enQuire Identity Server also supports a persistent captivi

- Robert I Method

data was our because management \*really put the hammer down about replicating data to different business. units," he says. Rebuilding the source directors would have required eight months, versus just one month to deploy a virtual directors. The technolup) provided a hierarchical view of the data 'without proxisoreing our data all

VENDORS OF VIRTUAL DIRECTORY

SOFTWARE are generally small compe-

nes with 30 employees or less and a cus

vendors offer only a virtual directory while

others offer a major products and services

Here's how they differentiate thermalises.

Radiant Logic and Transhern Norway

based MaXware Inc. offer both metadrec-

tory and writing directory products and pro-

mote integration features between the two

The MVD MaXware Virtual Directory offers a

feeble and easy-to-use interface, says But-

ton Group's Gerry Gebel Radiam One with a

persistent cache," bluming the distriction

between its metadirectory and virtual direc-

tory grounds Both BEA Systems Inc. and

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But those concerns don't bother sample sagen-on protect involving more than a half-dozen directories. "Because we aren't ned down to a true directors.

Time cont." Q 48758

## Metadirectory Wirtual Directory





## **Fuzzy Logic**

Fuzzy logic is an extension of classic Boolean logic designed to work with imprecise or vague data, with the concept of partial truth. Where classical reasoning requires yes and no values, fuzzy logic can handle concepts such as "maybe," "nearly" and "very."

#### BY RUSSELL KAY

to post of computing world is built on a structure of Boolean logic applied to binary values MERCATO MANAGERS INVOLVED

out But this powerful structure is a gross oversamplificametric notions that are clearly related to numerical concepts. or values but lock precision or

What time is at If I may server time-stamping thou sands of files, duetal certain cates or transactions. I need very fine distinctions from it I'm asking a co-morker what time it is do f really care that it s

II:4954 a.m. Eastern Daylight Time? Or Jo. I met want to know it Or take the weather If it's 90 degrees Eibranheit on a July day, that shot for Massachusetts but mild for Armona.

rain that month much comen tute a drought in Mosachu setts but a tack-one refect

#### Get Fuzzy

The real world simply doesn't map well to binary distinct tions, and numerical precisain is often unhelptul in makinsqualitative statements. Fuzzy logic gives us a wan to deal with such situations.

In fuzzy systems, values are

indicated by a number (called a truth salue) in the range from 0 to 1, where 0.0 repre with absolute falseness and In represents absolute truth While this range crokes the idea of probability fuzzy logic and turn sess operate outs.

differents from probability It I tell you that my height is 5 ft is in for lost cmt, you may have to think a bit before de edine whether you consider me short or mu short tiv-

tall) Moreover, you might recision me short for a man but tall for a woman So lea's make the statement "Russell is short; and give that a truth subserve of the It ii 70 represented a proba-

bilits sulue, we would Ar schance that Rusell is short," meaning that we still believe that Revell is either

short or not short, and we have a 70% chance of knowing which group he belongs to But fazes terminologs really translates to "Rus-

self's degree of membership in the set of short people is 0.70." by which we mean that if we take all the tifazzy set of a short people and line them up. Russell is positioned 20% of the saltion, we would set Russell is kind of short and recognize that there is no definite demarcation between short and tall. We can state this mathematically as mSHORT(Russells 0.70, where m is the membership function.

Attention difference becomes visible when we look at some logical operations, particularly or and and. In probability, we calculate the and (intersey turn) of two independent events by multiplying their in-

dividual probabilities together and the or (or union) as the sum of individual produbilities less their product, but fuzzy look, we evaluate or as the

maximum of individual truth values, while and is the mini-

lows us to generate fuzzy. matical calculations Defining hedges and the op-

statements through mathecrations that use them is a subjective process, and it can vary from project to project. But the system leaving use operators and produce compound results using the same formal

mum of those values. As we

continues to drop, eventually

approaching 00 For fuzzy log-

ic, however, the truth value re-

mains hugh. Similarly for the or

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limit will be the largest of the

individual membership values

factors increases probability

fuzzy sets doesn't rarse the

**Hedging Your Bets** 

One thing that makes fuzzy

systems useful is the ability

tive modifiers, to represent

fuzzy values. This keeps the

methods as classic lower incorporate more factors into For example, let's change the mix, even those with high the statement 'Bob is old' to values - the overall probability

"Bob is very old." Here we're using "very" as a hedge or descriptor, and this particular hedge is often defined as equivalent to the square of the base value. Therefore if mOLD(Bob) - 0.80 then mVERYOLD(8ob) 0.64 Other hedges include "more or less," "somewhat," "rather and "sort of." All have subjective definations but transform membership truth values in a

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systematic, reliable manner to define "hedges," or descrip-Kay is a Computerworld contriburing writer in Worcester, Mass You can contact him at operations of fuzzy logic clos-

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IT STARTED WITH PLATO

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are there technologies or essets you drive To kno a complete active of our risStudies on prime to

#### SEVEN TRUTHS OF FUZZY LOGIC

1. Fuzzy logic ien't hazy. Fuzzy logic to't oth cally impracts, doesn't waters common server and ces unambiguous results. "Chesson" Recient logic, in fact, is merely a special case of buzzy logic.

2. Fuzzy logic is different from prob probability, we're trying to determine something about the potential outcome of clearly defined events that may occur al random, With fuzzy logic, we're trying to determine something shout the nature of the event tisalf. Fuzziness is often expressed as ambiguity, not emprecision or uncertainty if six characteristic of

perception as well as concrete 3. Designing fuzzy sets is easy fuzzy sets reflect, ma penecel way, how people actually think about a problem. It's usually quick and easy to rough out the approximate shape of a fuzzy set. Later on, after some testing or as we can adjust its precise character

zy systems are stable and easily t

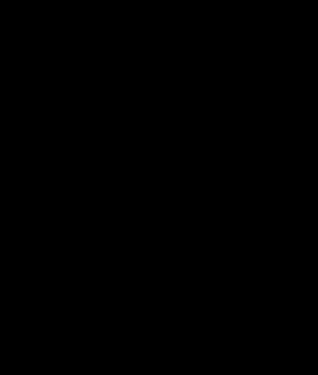
logic handles all the interfociony degrees of freedom ace systems are validated much like conve systems, but turing them is usually much simpler

5. Fuzzy systems aren't neural no fuzzy system attempts to find the intersection, unic ment of the fuzzy control variet While this is somewhat analogous to both neural networks and linear programming, fuzzy systems appr

6. Fuzzy logic is more than process control. Although son

people wew fuzzy logic mainly as a tool for process control and signal analysis, that interpretation is too limiting. Fuzzy logic is a way of regre senting and analyzing informs

dent of specific applicate 7. Fuzzy logic is a repri cosse. Fuzzy logic is a pov



Another difference bec

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# **FuzzyLog**

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### -

DIE DIGITAL computing world is built on a strucrure of Boolean logic applied to binary values - one or zero, yes or no, in or out. But this powerful structure is a gross oversimplificatioo of the real world, where many shades of gray exist between black and white. Io everyday life, we use quasimetric notions that are clearly related to numerical concepts or values but lack precision or demarcation.

What time is it? If I'm a server time-stamping thousands of files, digital certificates or transactions. I need very fine distinctions. But if

I'm asking a co-worker what time it is, do I really care that it's Il:49:54 a.m. Eastern Daylight Time? Or do. I just want to know if it's time for lunch ver?

Or take the weather. If it's 90 degrees Fahrenheit on a July day, that's hot for Massachusetts but mild for Arizona. A total of several inches of rain that month might constitute a drought in Massachusetts but a welcome relief from one in Arizona.

### Get Fuzzy

The real world simply doesn't map well to binary distinctions, and numerical precision is often unhelpful in making qualitative statements. Fuzzy logic gives us a way to deal

with such situations. In fuzzy systems, values are indicated by a number (called a truth value) in the range. from 0 to 1, where 0.0 repersents absolute falseness and 1.0 represents absolute much While this range evokes the idea of probability, fuzzy logic and fuzzy sets operate quite differently from probability. If I tell you that my height is

5 ft. 6 in. (or 168 cm), you may have to think a bit before deciding whether you consider me short or not short (i.e. tall). Moreover, you might reckoo me short for a man but tall for a woman. So let's make the statement "Russell is short," and give that a truth value of 0.20

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marcation between short and tall. We can state this mathematically as mSHORT(Russell) = 0.70, where m is the membership function.

mum of those values. As we incorporate more factors into the mix, even those with high values - the overall probability continues to drop, eventually approaching 0.0. For fuzzy logic, however, the truth value remains high, Similarly for the or operator, incorporating more factors increases probability to near 1.0, while adding more

### fuzzy sets doeso't raise the combined value at all, and the limit will be the largest of the individual membership values **Hedging Your Bets** One thing that makes fuzzy

systems useful is the ability to define "hedges," or descriptive modifiers, to represent visible when we look at some fuzzy values. This keeps the logical operations, particularly operations of fuzzy logic closor and and. In probability, we er to natural language and alcalculate the and (interseclows us to generate fuzzy statements through matheevents by multiplying their inmatical calculations.

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Mass. You can contact him at russkav@charter.net. IT STARTED WITH PLATA

Are there technologies or asses you'd his to learn about in QuickStudy? Send your To find a complete archive of our nckStudies, go online to

values, while and is the miniresults using the same formal SEVEN TRUTHS OF FUZZY LOGIC



It does no good to worry about hacker attacks if departing executives are free to leave with sensitive programs and data. By Mathias Thurman

HE OTHER DAY, I found out that an executive in my company was leaving. Normally, that wouldn't be a big deal. After all, in a large company people come and go all the time. But this executive's employment contract included a clause that lets him keep his laptop. As a security manager, I find this alarming, but it's a

common practice when hiring executives been While executives have always departed

with their computers, until now no one has bothered to erase the sensitive programs and data on those machines. Computers in the sales and marketing group, for example contain concontact lists, confidential price lists, e-mail correspondence, and merger and acqui-

sition information. The executive in question was part of an inquiry a few months ago that required obtaining an image of his lantop's hard disk drive. A member of the legal department. hearing of his planned departure, remembered that inquiry and called me. This person was leaving the company un-

der good terms, he said. onetheless, I asked for his laptop right away so that we could take another mirror imare, wipe the drive and then install the standard baseline image on it. To my surprise and dismay, my request was met by a considerable amount of resistance from management. But in the end, less than 24 hours before the employee's departure. I finally received his lapton.

In the wake of this episode, the CIO established a policy that any laptop leaving with an employee must have its

disk wiped. The policy statement will be included in foture offer letters whenever retention of any company-issued computer equipment is part of the employment agreement With that problem behind me. I turned my

atteotioo to another pressing issue. Except for certain enterprise-class applications, such as PropleSoft, Oracle and Siebel, my

company develops in-house almost all of the software it uses. Prior to deployment, am application we develop must enter our project life cycle, which includes many reviews Most of the items I am concerned with relate to access control, encryption, server and application security, and

proper network segregation. Unfortunately, this process is fairly new and is always being refined. We've only recently mandated IT security representation at the various stages

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and data on those

my group attends the project technical and critical design review boards. But sometimes smaller programming projects

can slip by A few months ago, I encountered an application than lets a user create and publish surveys. Since the program was designed for a group that was using the application for the one-time collection of nonsensitive data from the sales organization, we decided not to run it through the proi-

ect life-cycle process. But I remember mentioning at the time that I was afraid other departments would find our about the survey tool and try to use it for gathering more sensitive information.

Fears Realized

Since then, just at I feared several departments have expressed an interest in this arplication. After evening wind of this. I insisted that if the application was to be used in a production environment for collecting more-sensitive data it had to go through the formal project life-cycle path. As part of the security review, we conduct a variety of

security assessments. We so sess both the application and the server on which it will reside. In addition, we review the application's architecture. which typically involves undenstanding which north the application must use and any relationships between the anplication and other production servers. We don't want one romised system to lead to the compromise of others by way of trust relationships.

We also ensure that the approfined and that only the necessary services are allowed. The survey tool consists of a stand-alone application that creates a survey. The survey is then pushed to a Web server via an encrypted session. To enable that, firrwall rules

must allow only the server containing the stand-alone application to communicate with the Web server. We also needed rules to allow only Web traffic to the Web server and to our network operations center to monitor the server To conduct the server and application assessment, we

used the open-source Nessus scanning program and Web Inspect from Atlanta-based SPI Dynamics Inc. In addition, we used scripts and other techniques as time permit ted to further interrogate the server and the application. Any discrepancies in either must be fixed, or mitigating controls must be put in place For the survey-tool application, the server assessment came out perfect. That's because we have a top-ootch baseline system image that has been hardened and patched. But the application assessment revealed a few items of concern, including a cross-site

scripting vulnerability that could be exploited to cause the user to execute malicious code when viewing the survey. Once these vulnerabilities are fixed or mitigated we pleato give the green light to the project leader to deploy this application

Next, I'm back to trying to find an automated way to detect rosus wireless access points. We're testing Cisco Systems Inc.'s triangulation feature. If configured properly, it can detect an AP within a 10-foot radius.

The problem is that the APs are often hidden, and we still have to find them. So we're working on a way to eutomoria cally trace media access control addresses from our switches back to network lacks in individual offices. It's still not an ideal approach, but it's definitely a start.

MAT DO YOU THINK?

name and employer have been disquested to obvious messore. Contact him at markets flumenthatoccom, or printedo nour forum Quickline at590 to lind a complete archive of our uity Manager's Journals, go oriene to

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### Workshare Ships Protect Version 3.0 share Technology Inc. in Sur

recisco announced Workship stoct 2.0, software that's de d to detect and aliminate u d motadata from Mi e-mailed. The tool also into ith Letus Notes and Novell ine settmers, Avail now, Workshare Protect 3.0 starts at \$25 per sent.

### Asset Management Tools Improved

LogicLibrary Inc. last week re leased a new version of its Logi-dex software development asset management tools for J2EE and Met. Version 3.5 is compliant with the Web Services Into lin, according to the Pittaburo ed company. Logides 3.5 to at \$10,000 per server and \$1,000 per seat.

### lomega Adds 35GB SCSI Disk Backun

IB, an entry level acts nal SCSI disk drive designed to ace tape drives without dis-



BRUCE SCHNEIFR

# Encryption Must Move Beyond SHA

T THE Crypto 2004 conference in Santa Barbara, Calif., this month, researchers announced several weaknesses in common hash functions. These results, while mathematically significant, aren't cause for alarm. But even so, it's probably time for the cryptography community to get together and create a new hash standard. One-way hash functions showing that either - or

are a cryptographic construct used in many applications. They are used with public-key algorithms for both encryption and digital signatures. They are used in integrity checking. They are used in autheotication. They have all sorts of apolications in a great many different protocols. Much more than encryption aleorithms, one-way hash func-

tions are the workhorses of

modern cryptography. Ron Rivest invented the MD4 and MD5 hash functions in the early 1990s. Then the National Security Agency published a similar hash function called the Secure Hash Algorithm (SHA), followed by SHA-L which today is the most popular hash

function One-way hash functions are supposed to have two properties. First, they're one-way. This means that it's easy to take a message and compute the hash value, but it's impossible to take a hash value, and re-create the original message. (By "impossible" I mean "can't be done in any reason unt of time.") Second, they're collision-free. This means that it's impossible to find two messages that hash to the same hash value. The cryptographic reasoning behind these two prope ties is subtle, and I invite curious readers to learn more in my book, Applied Cryptography (Wiley, 1995).

Breaking a hash function means

both - of those properties aren't true. Cryptanalysis of the MD4 family of hash functions has proceeded in fits and starts over the past decade or so, with results against simplified versions of the algorithms and partial results against the

whole algorithms. This year, Eli Biham and Rafi Chen, and separately Antoine Joux, announced some impressive cryptographic results against

MDS and SHA Collision have been demonstrated in SHA. And there are rumors, unconfirmed at this writing, of results against SHA-L The magnitude of these results depends oo who you are. If you're a cryptographer, this is a huge deal.

While not revolutionary, these results are substantial advances in the field. The techniques described by the researchers are likely to have other soplications, and we'll be better able to design secure systems as a result. This is how the science of cryptography advances: We learn how to design new algorithms by breaking other alsorithms. In addition, algorithms from the NSA are considered a sort of alien technology: They come from a superior race with no explanations. Any successful cryptanalysis against an NSA

algorithm is an interesting data point in the eternal question of how good they really are in there

As a user of cryptographic systems

- as I assume most of you are - this news is important, but not particularly worrisome. MD5 and SHA aren't suddenly insecure. No one is going to be hreaking digital signatures or reading encrypted messages anytime sooo with these techniques. The electronic world is no less secure after these announcements than it was before

But there's an old saying inside the NSA: "Attacks always get better; they oever get worse." These techniques will cootinue to improve, and probably someday there will be practical attacks hased on these techniques.

It's time for us all to migrate away from SHA-L

Luckily, there are alternatives. The National Institute of Standards and Technology (NIST) already has standards for longer -and harder-to-break - hash functions: SHA-224, SHA-256. SHA-384 and SHA-512. They're already government standards and can already be used. This is a good stopgap, but I'd like to see more.

I'd like to see NIST orchestrate a worldwide competition for a new hash function, like it did for the new encryption algorithm, Advanced Encryption Standard, which replaced the Data Encryption Standard, NIST should issue a call for algorithms and conduct a series of analysis rounds where the community reviews the proposals with the intent of establishing a new standard.

Most of the hash functions we have and all the ones in widespread use are based on the general principles of MD4. Clearly, we've learned a lot about hash functions in the past decade, and we can start applying that knowledge to create something even

more secure. Better to do it now, when there's no reason to panic, than years from now, when there might be. O 48021

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Maryfran Johnson, Editor in Chief Computerworld 845am to 915am Industry Analyst Perspective

9 15am to 9 45am Virtualization at CIGNA Corp.; Balancing Tactical IT Goals with Business Strategy

9.45am to 10:15am 10:15am to 10:45am

10:45am to 11:15am 11:15am to Noon

Ben Flock, VP of Virtualization and Application Frameworks, OGNA Refreshment and Networking Break

Update from the Enterprise Grid Alliance (EGA The View of Grid Computing from Iron Mount Bill Olsen, VP of Engineering, Iron Mountain

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### who's who in it The Thrill of Crisis You may think that database

administration is a skill, but DBA Gary Rue knows it's an art. In his world, a crisis is always just around the corner. Page 36

### OPINION Intelligent Disobedience Executives with half-baked and hare-

brained ideas can doom projects from the start, and scope creep threatens the rest. What's a project manager to do? Gopal K Kapur has the answer: Just say no. Page 38

### Petite Portfolio

Big projects get all the attention but several small projects can add up to big risks. Managing them efficiently requires a careful balance of rigor and common sense, Page 33

When business units fight to control the corporate Web site, the company loses. By Mary K. Pratt

ORKERS at Excel Switching Corp. spent months studying successful Web sites, mapping out a strategy and implementing their own Internet vision. But the planning couldn't eliminate a common problem: internal debutes For example, engineers at the Hyannis, Mass., company, which sells hardware to the communications carrier industry, wanted graphics and information to dominate the site, while marketers wanted a more streamlined approach. "There is that push and pull," says Bill Kelly, Excel Switching's director of marketing programs, adding that the company takes a democratic ap-

proach in those struggles. "Whoever has the most influential argument. we'll go with it," he says. Technology experts and business leaders alike say ownership of correrate Web sites is often up for grabs, as

departments fight for placement, space and functionality. Marketing uses the Web site for branding, sales uses it to sell, and customer service uses it to nize inbound phone calls. IT is left to support all the demands - within budget, of course.

launches and budget overruns - that can cost the company sales, brand recognition and customer satisfaction

A 2004 report from Jupiter Research in New York highlights the problem: "Often there is neither an incentive for units to work together to accommodate each other's objectives, nor a governance mechanism to maximize the overall value of the Web site as a corporate asset "

"The Web represents a confluence among different parts of the company. says Jupiter Research senior vice president David Scharsky, who wrote the report. He points to a well-known consumer travel company that also serves businesses. The company's business division wanted to promote its businessoriented products on the Web site, but other divisions thought that would puzzle the company's core clients: individual consumers. "In that situation you need a higher authority who can make a decision," Schatsky advises.

### The Cost of Dissension

Jackie DiGiovanni, vice president of marketing and







### Pieces of Web Pie





abries William

knows how costly those debates can be. When her division redesigned its Web site last year, the internal audit department wanted last-minute changes to the security features. Other departments disagreed with the proposal to assign new numbers and access codes to the 1.2 million participants who would use the site, but madit

got its way, DiGiovanni says. The change was a disaster, prompt ing frustrated plan sponsors and participants to bombard Manulife's customer service department with calls. "What internal audit wanted ideally was not workable in the real world," Di-

Giovanni says. Manulife spent \$500,000 and six months resolving the problem. Now she tells team members to bring such disagreements to the attention of the next level of management. "We're more aware of needing to identify the conflicts and take more to the steering committee and let it get hashed out at

that level," she says. Web steering committees are typical at more sophisticated companies, Schutsky says. A financial institution, for example, might have leaders from IT, the mortgage unit, the credit card division and customer service on the com with the chairman reporting to a se-

But Rick Swanborg, president of

loex Inc., a research and content manapement firm in Boston, says simply forming a steering committee isn't coough. "The companies that have done a better job at it have really put together a specialized group with people from IT, marketing (and) maybe some people from human resources who can think through the best way to build the corporate Web site," Swanborg says. He suggests that a company form an entity that's focused only on the Web

site and that holds ultimate responsihilling and suchocing Jupiter Research's report recommends appointing 'a single executive

with responsibility for muximizing the value of the company's Web site overall." That executive's job would be to make sure decisions support the whole company's objectives rather than the goals of an individual department Companies also need to define a primary, high-level purpose for their sites. "It's crucial to getting to the next step,"

which is to maximize the Web site's return on investment, Schaesby explains. When developing its initial site in 2001, New York-based Verizoo Communications Inc. defined it first as a single door to the corporation and second as customer-focused, says Maria

Malicka, executive director of e-commerce and call management. "We gained alignment around that, so we didn't experience infighting or major disagreements," she explains

Verizon also instituted an e-com merce council of vice presidents and directors to address corporate-level questions and develop high-level strategies for the site. And the compony has stakeholder forums, so leaders from different departments can bear and weigh in oo proposed Web size changes. "Everyone was at the table

from the beginning," Malicka says. These steps haven't eliminated all debates about the Web site, she says. But they're crucial to resolving departmental conflicts so that the outcomes are best for the company.

"We are all in alignment on its goals. and if there are any disagreements, we have forums for discussion and negotiations. And when we focus on goals and customers, we don't have any issues that we can't resolve," she says.

### A Clear Strategy

Randy Gravlin, president of Business Innovation Inc., a technology consulting firm with offices in Woburn, Mass., and Montreal says that without a clear strategy, companies end up with "clusters" such as IT, business and marketing that ultimately have to come to-

### First Among Equals

Companies often put functionality or time to market lest when it comes to their corporate Web sites, but they should put securrily at the top of the lest, saws Jonathan 6. Sossels, president of SystemExperts. Corp., a Sudbury. Mass -based provider of network security consulting services with one offices throughout the U.S.

That means the security learn must rank as a major stakeholder as sows are burter bris flud "Security should be part of the overall

plan. That's early, that's before anything has been written," Gossels says. Companies should have guiding principles when 4 comes to IT security, and those principles must apply to Web sites says Bala lyer, an assistant prolessor in the

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information systems department at Boston University's School of Management. Without those guiding principles, comparies "could drop the ball on security" as they build their Web systems, Iyer says Still, he believes many companies push security down on their list of priorities.

Gossels recommends that companies empower workers "to blow the whistle when something isn't being built security The ownership of securing the fam is shared by everybody in the firm Every body's reputation suffers if the cargo goes out without shutting the door."

- Mary K. Pratt -------

L----pether to build a successful Web site. We've heard it many times: This is going to be very hard. How do you bring these groups together to build a consensus? But it is doable," he says. Business Innovation worked with St. Louis-based Upbeat Inc. when the company spent nearly \$1 million re-

vising its Web site earlier this year. Carla M. Russo, Upbear's vice predent of material management and MIS. says the site was reworked to integrate it with back-office functions, collect better data and drive more truffle The marketing department at Up-

# Reaching Consensus

ses that invites input from every depa d review the new

Despite the various and see ing orders that IT might no

· Dalles a high-lovel, primary me pees for year corporate Web allo. This will help guide decisions and serve as a reference point for resolving conflicts · Name on only - on inde

arting committee or a near depart of - responsible for mapping the co Web channel and madeing conflicts.

beat, which manufactures and markets indoor and outdoor products for bosioess and government properties, controlled the Web site prior to its redesign, Russo says. But marketing also oversaw the production of 5 million catalogs annually, and the Web site had to compete for limited resources. Sometimes that meant Russo and the

webmaster were overruled Russo remembers one instance where she pushed for photos to correspond with each item available for sale on the site, arguing that customers

want to see exactly what they're buying. Marketing said no, citing limited time and resources. But with the redesign, Upbeat's CEO agreed with Russo and ordered onw

otos. Russo sees this as one sign of the company's new focus on the Web. Prior to this redesign, the Web was there, but I don't know if anyone was really treating it as a channel," she says. There was no clear marketing plan, and there were no specific goals. "No-body was really driving it," Russo says.

Russo now sees IT and marketing as having more equal standing, which means better decisions for the compamy overall. Upbeat even plans to add a new position staffed by someone who has both a tech background and marketing know-how to help bridge the

two departments that run its site. "Unlike other channels that can be owned by one department, the Web site is a unique animal. It just plays too interactively into other areas," she says. "It's the one channel where there has

to be a clear collaboration." O 48696 Pratt is a freelance writer in Waitham, Ma

Contact her at markmary@mindspring.com

Project managers understand that they can be more flexible with small projects but critical requirements remain. At Capital One Financial Corp. effective small-project management starts with defining the criteria for

a small project - those valued at \$50,000 or less - and establishing a ser of requirements that have to be met. For instance, the manager of a small project at McLean, Va.-based Capital

One will place greater emphasis on how changes directly affect end users and focus less on technical change management issues, says Ray Frigo, vice president of corporate technology

management at the credit card issuer. Since it began refining its project delivery approach three years ago, Carrital One has scaled back documentation

requirements for smaller projects so they don't become too cumbersome to manage, says Frigo. The tailored smallproject methodology has helped the company complete projects 10% to 15% faster this year, he says. The FDA uses IT portfolio manage

ment software from Portland, Orc. based ProSight Inc. to help ensure that small projects go through much of the rigor that bigger projects do. Project managers design a work breakdown schedule and a budget plan for each phase of every project, says Bond.

### What to Dron But other big-project requirement

such as documenting each step, can be waived. "For a \$25,000 project, you'd spend more time documenting than you would building," Bond explains. At Russell/Mellon Analytical Ser-

vices LLC, managers prioritize and rank projects of all sizes with the help of a project management office (PMO) that was created four years ago, says Tammy Reuter, manager of strategic initiatives at the Tacoma, Wash

based provider of investment analysis services.

The PMO mandates that project managers develop a business case for each effort, regardless of size. "We want to make sure that the smaller projects we pick are the most critical." says Reuter, whose group uses portfo lio management software from Relie-

vue. Wash-based Pacific Edge Software Inc

But certain efforts don't meet the threshold for project rigor. For example, if the company has a \$20,000 software enhancement to complete, "we don't do much management of that other than determining which tweaks will be done first," Reuter says.

A business case also has to be made for projects of all sizes at Brown Brothers Harriman & Co., a private bank in New York. The difference is that a smaller project might not require the same amount of detail. "Maybe a twopage business-requirement document instead of a 50-page document," says

Rick Berk, the bank's CIO. The bank's senior management monitors all projects using a combination of weekly and monthly reports

developed with portfolio management software from Redwood City, Califbased Niku Corn. Large projects still command more

quality assurance staffers than small projects, Berk says. But to ensure that smaller projects are beld to a consistent standard, the bank's IT staff has written test scripts for them. That enables the bank to perform faster and more automated regression testing that's "less of a burden for smaller projects," says Beek

IT shops vary in their approach to small projects, but Forrester's Visitacion says smart project managers agree on one thing: "You can scale down the rigor, but you can't throw away the requirements." O 48650

### CHECKONS OUT CAN CMM: The Capability Maturity Model can add repor



# Petite **Portfolio**

Managing small projects requires a careful balance of rigor and flexibility. By Thomas Hoffman

ROJECT MANAGEMENT experts will tell you that IT departments are doing a better job than they used to in delivering big projects on time and within budget. But shift the discussion to smaller projects - those valued at \$250,000 or less -

and their confidence starts to dwindle. "There's a gap when it comes to small projects and the due diligence that should be applied to them," says Margo Visitacion, an analyst at Cambridge. Mass,-based Forrester Research Inc. With small projects, IT project mar agers often spend less time on critical

areas such as testing and quality ass ance, says Visitacion. And even if IT departments have fairly mature project management disciplines in place, "they apply the practices, but the rigor goes own," she says. own, sne says. Other tasks that IT managers tend

to downplay on small projects include documenting the business objectives. defining requirements and managing changes, consultants say.

While individual small projects may seem less significant, they add up. This year, for example, the U.S. Food and Drug Administration has 28 projects it defines as "major" on tap that cost at

Middleware is Everywhere.

Can you see it?









What is a database administrator?

Someone who maintains and supports the database engine. In database administration, there are the people on the design and architecting of the database - the logical side - and then there's the physical component, where we take the logical and make it into the physical and administer the database after it's up and running. The area that I manage is more on the production and physical side of database support.

What is the most important centr you make, and how do you make it? Our most important contribution is to keep the database running It's an on-coll function; you never know what might happen. Half the branch was up all night last night restoring a database because of a failure. Data recovery is very important, and so is performance tuning and problem solving. In IT, you tend to start at the back end and work out to see where the problem lies, so generally, we're one of the first areas that will be contacted when a problem occurs,

### What is the most important IT skill or aptitude you need to do your job? We

need to understand how the database engine works. We need to understand the technical components of the application environment, the processes within the environment and the relationships of all the people surrounding the environment. There's science, but

What is the most important "soft" skill or ality characteristic you need to do

your job? We have to be good sounding boards. We have to help others identify and solve their own problems. They tell us what they think is wrong, but we have to get them to see outside of where they think the problem is, because if they really knew, they wouldn't be talking to us in the first place. A good database administrator has to see the relationships among the technology pieces, the people, the systems. We have to see the bigger picture and relate it Sometimes we have to take a very technical piece



# The Th Of Crisis

DBAs are often the last to be involved in planning but the first to be called when things go wrong.

THIS IS THE FIRST IN A PERIODIC SERIES EXPLORING HOW IT PEOPLE SEE THEIR JOBS and translate it to people at all levels of

technical knowledge. That's hard to do. What is the biggest mis what you do? We're a very tactical group - we have to be. But there's a

strategic part of what we do so we can apply the tactical parts appropriately. For example, a developer says, "Create these tables." But for us to really do a good job, we need to know why Weneed to know bow and when those

tables are going to be accessed. We need to understand the system so we can apply appropriate security. We also have to understand what type of data recovery scenarios we need to address, how and when to do the backups and where they will be stored. And we need to go through all types of scenarios to adequately recover that database.

What do you like best about your job? The

ple, developers - they're all problem solvers. They're all smart, creative IT people. And being in support a crisis is always just around the corner. I like the thrill of the crisis. I like being put on the spot to find a way to solve a problem.

What do you like least? I don't like to take care of problems that, if I'd gotten enough information upfront or the right information, we could have dealt with it then. I don't like to put something in production and then have to fix it because future possibilities hadn't

What should IT people know about your role? Today's developers have date. bases on their desktops, so they think they're mini-DBAs. When we get involved, it's always after the implementation. Lots of issues could have been addressed if we had been involved ear-Ber in the development process. Also, we do have a recovery role, and we should be asked about the recovery possibilities when a database goes down. IT people sometimes think they know how to recover, so generally we get brought into it because they have recovered incorrectly.

What should business people know abor your role? Business people think IT can do anything, but they need to know that there is a cost associated, and sometimes the cost is too high to implement certain features. There are still priorities you have to set.

What would enable you to do your job better? Having more database tools and early interaction during the development process.

If you were not a data architect, what would you be? A detective. Trying to dig information out of people, the ability to look at disparate pieces of information and apply them appropriately to determine how an event happened - you have to be a little bit of a detective as a DBA.

How does the future look for your role? I think of us as the hub. The business user, the developer, the operations person, the systems person - they all relate to the database in some way. Our job changes slightly with new technol ogy, but I think a DBA will be a very. very important role for years to come. And besides, everybody needs someone to point the finger at. O 48695

Interview by Kathleen Melymuka. people we work with. The systems peo-Rue can be contacted at gary.rue@ky.gov fits-all approach to effective

focused on either profits or

growth tend to have similar

povernance models

at for-profit compa-

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by Jim Hatsmith (Addison-Winsley

though agile software devel-

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proach to project manage-

ment. This approach places

more authority in the hands of

project leaders and line work-

2004, 277 pages, \$34.95) Al-

the CIO Must Ask the CEO Schubert's work draws upon

# From IT Governance

Recent management books provide tips on IT governance, CIO survival, agile project management and understanding hackers.

Governance

IT Governance: How Too Performers Manage IT **Decision Rights for Superior** Results by Peter Wed and Jeanne W Ross (Harvard Business School Press. 2004. 269 pages. \$35) IT governance is a pressing

issue these days, particularly since technology spending accounts for up to half of all capital expenditures at many companies But few managers can accurately describe IT governance

within their companies, much recommended reading for less quantify the impact of good governance on their botthese issues. tom liner Weill and Ross, research scientists at the Center for Infor-Creating Innovative Products

motion Systems Research at MIT's Sloan School of Management, do just that and stance, a CISR study of 256

global comesnies pereals that the profits of companies with top-notch IT tices are

bigher than th noor authors thly dewhat II

namer is. iffy the apthes used to ern IT and offer advice on how to set up an

ers who are doing the executing while concentrating on delivering customer value. Don't assume that agile project management is "PM lite." In Highsmith's view, agile project management doesn't dismiss the importance of effective quality assurance, documentation or testing, but it does de-empha-

size them as core principles. Instead, Highsmith effectively cites forward-thinking project management principles that have been espoused While the authors acknowlby his peers and pulls them edge that there is no one-sizeinto a cohesive, usable ap-

proach. He also goes to great IT governance, their research lengths to explore the single finds that companies that are most critical component of effective project management: people -----The book is aimed CIO Survival Guide: The

nies, but it has a chapies and Responsibilities of ter devoted to governthe Chief Information Officer by Karl D. Schubert (John Willia & not-for-profits. This is highly Sers 2004 294 plant \$45) This up-to-date how-to book is anyone who's struggling with worful for seasoned CIOs as well as newcomers who have recently transitioned into

> Schubert, a former chief technical officer at Dell Inc. who's currently chief operating officer at network storage provider Zambeel Inc., offers readers a logical approach to the CIO's role and challenges. including tips on building relationships with company caecutives, business partners and other key constituents Particularly useful are check-

> > SURVIVAL CUIDE

by The Honeyner Project (Addisor

ansights from several leading management gurus, including Harvard Business School's Clayton M Christensen and John Seely Brown This book a good read for any CIO who's trying to thrive or simply survive -----

Know Your Enemy: Learning **About Security Threats** 

Waster 2004 768 pages \$49.991 Founded in October 1999 The Honeynet Project (www honeynet.org) is a nonprofit research organization of security professionals who built a computer network, wired it with sensors, but it up on the Internet and recorded what



harmened. (The actual IP ad dress isn't published and changes regularly.) Hackers activities are recorded as they occur: how they try to break in, when they're successful and what they do once they

This is a fairly technical read with quite a bit of information about how honeynets work and what goes into both Unix and Windows computer forensics. But the authors also provide a detailed sociological analysis of the white-har and black-har backer communities, includine an extensive examination

of their motives. O 48699 - Thomas Hoffman

Chert and remove book source or

## EXEC TRACK

### CXO Names CTO

ALOK SATRA has been name technology officer at CXO ms in Weltham, Mass, in his us role as vice presi ring. Betra led the dovel sent of the company's mar ent deshiboard products. He anded Dashboard Systems, which is now CXO Systems.

### Transplace Picks Cashman for CTO

NOY CASHINAN has joined Trans-place Inc. as CTO. Plane, Texased Transplace is a trans on logistics management pro-der. Previously, Cashman was

### Carver to Head IT Unit at Dana Corn.

MINUTE C. CARVER IS NOW COD at Dana Corp., an autor ucts manufacturer in Toindo. Ohio, Proviously, Carver was divi-sion CIO for PapalCo Bevarages and Foods, a unit of PepsiCo Inc., and CIO at The Reynolds and rolds Co., a pro-

### Certoma to Lead IT At Wachovia Unit

N CERTONA has joined Cha lotte N.C.-based Wachovia Corn. as CIO of the company's corp dy, she was a vice president in

### **Holeman Moves** To Sentient Jet INTO HOLESAN has been now

a president of IT at Sentient Jet inc., a Norwell, Mess.-based prisible for specially techn gy as well as for CRM and call

GOPAL K. KAPUR

# Intelligent Disobedience

ISCUSSIONS with project managers about the key causes of failed and challenged projects always raise two primary issues: halfbaked or harebrained ideas becoming projects, and excessive scope creep.

Traditionally, senior management is charged with conceiving ideas that will drive the organization toward profitability and inbaked idea that turns into a

dustry leadership. Hence. there is immense pressure on executives to deliver innovative ideas that can be turned into products and services for profit and competitive advantage. Unfortunately, these visions are often intertwined with

any number of helf-heled and at times harehoused ideas. When half-baked and harebrained ideas set communicated to them. many project managers don't object because of a culture of not questioning

the senior people. The general thinking is, "How could they be wrong?" Another big contributor to failed and challenged projects is the inevitable scope creep. We all know that at times customers can be unreason-

able and unrealistic in their expectations, but they're also subject to external pressures they can't control government regulations, competitive positioning, emerging opportunities and the classic "silver bullet" syndrome, also known as Management by Magazine. (This occurs when the customer reads an article on an airplane while 35,000 feet over Kansas and forms a new vision.)

But forcing the team to agree to continuous scope creep is clearly not the solution. And you get hit with a double whammy when projects are built around half-baked ideas. A half-



agers may feel that they don't have the ability or wherewithal to say no and that their only option is to do as they're told, even though they know that the outcome may harm the organization. This begrudging compliance is an unfortunate attitude in any circumstance. In the extreme

Learn to say no.

project with extensive

scope creep is a nightmare.

agers do to minimize these

problems? Simply stated:

Of course, project man-

What can project man-

This is where the concept of intelligent disobedience comes into play. Intelligent disobedience is a trait clearly illustrated by guide dogs for the blind: At an intersection, based on traffic sounds and a general sense of safety, the blind person initiates the move to cross the street, giving a signal to the dog. If traffic is blocking the crosswalk, however, the guide dog will disobey the move-forward command. In guide-dog training lingo, intelligent disobedience is the dog's response when it senses that the path ahead is dangerous. It disobeys even though

case, it can lead to disaster

the owner wants to proceed. Now consider a different scenario: The dog disobeys the owner's command because it sees traffic blocking the intersection. The dog's owner punishes the dog for its disobedience until the dog finally proceeds. You can imagine the consequences.

It's important to note that dog owners are trained to trust their guide does because the two have to work as a team for the protection and safety of

the owner. The essence of the intelligent disobedience behavior as it applies to project managers is to say a firm "no" to the demands of executives and customers

when such demands will put the project, and hence the organization, in harm's way. Humans are supposed to be smarter than dogs, but it's amazing bow difficult it is to teach humans to exercise intelligent disobedience. Intelligent disobedience requires

empowerment and trust. It's important that project managers be well trained in reading the danger signals and empowered to push back when they believe that a proposed project will put the organization in harm's way or that the requested scope creep will create undue risk. Project sponsors and customers have to learn to trust their project managers to do the right thing.

Unfortunately, project managers can't change the culture on their own because many lack the political chips and the skill to negotiate with over bearing executives and unreasonable customers. They need the sponsor's help and support. For intelligent disobedience to be-

come accepted, sponsors must work to establish an environment of open and forthright communication with trust and respect for their project managers. Whether project managers react with intelligent disobedience or begrudging compliance largely depends on the organization's culture. Are project managers in your organization encouraged to practice intelligent disobedience O 48678

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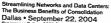
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peak season," said Mike Iones. CIO at Circuit City Stores Inc. "While I'm happy to see that Microsoft has put out SP2 in response to known issues and weaknesses over time, it just doesn't work out timing-wise

for us." Jones said the Richmond. Va.-based retailer won't deploy SP2 until the first or second quarter of next year. And be was hardly alone in ining that

the SP2 deployment Votor XP SP2 mecus will have to wait at least four months. Fifteen of the 26

respondents who now have at least some XP in their deskton environments indicated either that they would wait until next year or that they had no nearterm or set plans for SP2. The remainder said they plan to deploy SP2 when they complete testing, with three of them saying they expect that will be within two months and

another within four months. "We are very concerned about this service pack breaking some of our app said Bill Lewkowski, CIO at Metropolitan Health Corp. in Grand Rapids, Mich. "In fact. we had one of our vendors give us notice that their applications would not work."

That vendor was McKesson Corp., a San Francisco-based provider of health care applications, he said. Lewkowski added that he isn't sure when politan will finish testing SP2, since it will need resources and money that hadn't been budgeted. He said the IT department will work with its more than 400 vendors, but he isn't sure it will ever set to the point where it can deliver SP2

to its users. But Steve Kleynhans, an analyst at Meta Group Inc., said his firm is advising cor to roll out SP2 as fast as they can. He said he expects it will

take most companies four to six months to complete the certification and engineering process to prepare for the millout. "SP2 is mandatory. You

don't have a choice," he said. 'Anything in the future is going to be built on SP2." Yet the application compatibility problems that some companies are encountering can be difficult to work through, John LaBrue, a team leader in dis-

tributed computing at OGE En-ergy Corp. in Oklahoma City. said some applications that the IT department test-OF ON SP2 ed broke because of the new Windows Finned "There are

methodologies in place to disable the firewall. and we have deployed those in our test environment. We see still having issues," LaBrue said. "So it's not alleviating the problems we are experiencing LaBrue said OGE also has several custom applications for mobile data that are in a "broken state." Its Citrix Sys-

tems Inc. application also failed, but staffers stumbled upon a fix that worked even though it wasn't designed for that problem. In addition to con application incompatibility

and firewall issues, DHL Worldwide Network SA/NV is worried about SP2's size making it cumbersome to deploy

NEWS

to users who may be connect ed via slower network links. according to Meg Plummer, director of front-end services

at the international courier. The full SP2 package checks in at about 265MB, according to Microsoft. The average download is expected to be much smaller because of

"smart download" technology that installs only what users need. For XP Professional, the SP2 download is expected to be about 100MB, Microsoft said.

Preemptive Moves

Some companies have had to disable Automatic Update to make sure users don't download SP2 before they've had a won't boot and must be freed chance to test their applications. John Foley, a network planning analyst at Werner Co in Greenville, Ps., said that even though his company distributes security updates through an internal server, he made a change to the group

policy setting in Active Directory to block users from downloading SP2 via Automatic Undate or Windows Update Companies that rely on instructing users to disable Auto-

### Rate Your Experience With SP2

matic Update run the risk of experiencing frustrating consequences. According to a source at a manufacturing firm who requested anonymity, two users there downloaded SP2, despite messages instructing them not to install it. Now the machines

But SP2's timing will work well for some companies. Allstate Insurance Co. expects to start rolling out Windows XP on April I next year, so the company is doing SP2 and XP application compatibility test-

ing at the same time. Still, that's no small undertaking, Kerrin Rutherfood a workstation strategist at the Northbrook, Ill.-based compamr. said Alistate has about 1.000 applications to test.

So faz, Greg Lavigne, an Alistate systems consultant, has already observed that the inpurer's WRO Reflection terminal-emulator software has been flagged by Microsoft on a Web page carrying the headline "Some programs seem to stop working after you install Windows XP Service Pack 2."

Ion Murchinson, a Windows client product manager at Microsoft, said customers should take advantage of SPZ's cohancements right away. But the company also recognizes the need for application compatibility testing, he said. and it recommends that customers test SP2 in a closed covironment before rolling it out to their entire enterprises.

Early SP2 Adopters Got Extra Help Solving Problems

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# Shred, Burn, Erase

OW DO YOU DEAL WITH the sensitive data on your high-tech junk? One way is to send your old PCs to a company that makes a business of handling decommissioned corporate computers. These days, they'll charge you an extra \$10 to \$30 just to make sure the hard disks are completely erased [QuickLink 49063].

Sure, that's more than you want to spend. But it's a bargain compared with what a lawsuit might cost if sensitive customer information leaks out of your company on the unerased hard disk of a discarded PC. It's a small price to pay for peace of mind.

Does that sound a little paranoid? Maybe it is,

But I've purchased thrift-store PCs and junk shop hard disks. And yes, I've scanned through their contents before repartitioning the drives. I've seen personal letters and business correspondence, contracts and legal papers, Social Security numbers and other customer data. All you need is to scan a few recycled hard disks to gain a healthy puranous about junkers that contain valuable information. I've scanned dozens,

I've also seen the results of projects by researchers such as Simson Garfinkel at Sandstorm Enterprises, who found high-tech vendor source code, financial information from investment firms, thousands of credit card numbers and even internal Microsoft e-mails on secondhand hard disks he bought at swap meets and used-computer stores and on eBay.

So my peace-of-mind threshold is pretty high when it comes to data on high-tech junk. Maybe yours should be too

After all, that PC recycler may do a highly professional tub of wining your junked PC c hard disks. But before that happens, those PCs will sit on your loading dock - then on a truck, then on the recycler's loading dock. There may be plenty of opportuni-

ties for someone to walk off with How do you keep it safe until it's wiped? The simplest answer: Use a \$50 commercial software package to wipe the disks yourself. before they go to your loading dock. Then pay the Pt. recycler's fee to have them wiped again. Sure, that's a belt-and-suspenders approach, but it cuts the risk of a

stolen junior exposing sensitive

data. It also eliminates the single

But if what you want is peace of mind, it's nowhere near enough. pount of failure of one disk-wiping session.

But that's not the only small price you'll have to pay to protect your data. There's probably data hading on other high-tech junk, too. Backup rapes are easy enough to deal with

You are using a \$100 bulk craser to wipe them before you trash them, right? You can also use that to handle many kinds of recordable media that users copy sensative data

with. That means floppy disks, Zip disks and cartridges for lots of other removable-modia magnetic drives

Then there are recordable CDs and DVDs. the bane of any IT shop that's arying hard to keep from leaking data. They're high-eapacity uncrasable, tough to destroy and easy to drop into the wastebasket - which makes them easy pickings for anyone who decides to dig through your Dumester.

How can you get rid of them? There's no simple, standard answer. People have tried microwaving, burning, sanding off the surface even dissolving them in acctone. The easiest may be to run the disks through a heavy-duty paper shredder -- that will run you \$500 or more, but your office prohably

already has one. But before you can shred those CDs or erase those Zip disks, you have to collect them from users. They may think you're a little para

noid for trying to track down every piece of high-tech lunk that might contain sensitive data Just remember: All it takes is one large dollop of that data in the wrong

hands to make your worst fears a reality: Compared to that, users thinking you're paranoid really is a small price to pay. O 49071

### Just Keeping His Options Open

For this online sales form, there are 60 pages of space lying whether fields are required or optional. "But during beta testing, the VP of sales goes ballistic because we don't let them submit a quote without the ired fields," says developer pilot fish, "He tells us that the fields are only required if the user knows the information - otherwise they're optional." How can IT know if the user knows the information? "He most that he's just responsible for the requirements," fish says. "It's our job to figure out how to do it."

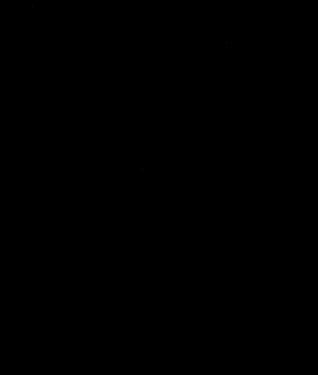
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gain a healthy paranoia about junkers that contain valuable information. I've scanned dozens. I've also seen the results of projects by researchers such as Simson Garfinkel at Sandstorm Enterprises, who found high-tech vendor source code, financial information from invest-

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hard disks. But before that happens, those PCs will sit on your loading dock - then oo a truck, then on the recycler's loading dock. There may be plenty of opportunities for someone to walk off with

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to pay to protect your data. There's probably data hiding on other high-tech junk, too. Backup tapes are easy enough to deal with. You are using a \$100 bulk eraser to wipe them before you trash them, right?

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Just remember: All it takes is one large dollop of that data in the wrong hands to make your worst fears a reality. Compared to that, users thinking you're paranoid really is a small price to pay, O 49071









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